Calgary Exchange Prexy

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Frederick Gordon Elves, 39-year-old native of Vulcan, Alta., this year heads the Calgary Stock Exchange. In addition to long experience with investment matters (his father was also president of the CSE), Elves has been a pilot, once operated an auto supply business in Ontario. *(Personality sketch, p. 6)*

NATION'S BUSINESS

The Outlook

What's YOUR view of the business outlook for the second half of this year and for 1958?

Continuing its periodic check of opinion among the important decision-makers in the Canadian business community, The Financial Post this week prints a detailed report of what these men are now thinking and planning. (See front page of second section.)

The same group of corporation chiefs were last asked similar questions in December, 1956, so the trend of their thinking here revealed is interesting and significant.

Very briefly, the group as a whole is not now as bullish in its opinion as it was six months ago. They expect sales in general to go on increasing, but the gain is, they think, likely to be slower.

On profits, the general view is a little less optimistic than six months ago. But about a third of the group now expect profits the last half of this year will be about the same as in the last half of last year. Another third expect their profits, on the same comparison, will be substantially better.

Another very interesting point is that more than half expect their total 1958 sales will be greater than this year.

But read the full report which shows also the breakdown of opinion by industry.

Altogether this expression of group opinion (which has been remarkably accurate in the past) is pretty good news for the public at large.

As a matter of interest we add here the forecast of a very expert economic group in the United States. It flatly declares 1958 will be better than 1957 with a further continuation of economic growth. Decline in purchases of cars, houses and inventories has slowed down the economic wheels in the past 18 months though over-all U. S. totals continued to rise because of increasing government outlays, enormous new capital investment and the general increase in consumer buying.

But these American forecasters say the slowdown on cars, houses and inventories has gone as far as it can go, and that 1958 will see a strong forward movement over the economy as a whole.

* * *

A Time to Slacken The Flow

It's absurd to say: "We can't have too many immigrants." Such optimism would be quickly dispelled by arrival of a couple of million assorted overseas types at Toronto Union Station. The city couldn't cope.

Canada needs extra manpower quicker than the birth rate can provide it. Canada also has a duty to share opportunities and offer sanctuary. But these two propositions don't add up to a policy of unlimited immigration at all times.

In the eleven postwar years 1946-56 inclusive, 1,387,176 immigrated to Canada. The largest group was from Britain, followed by Germans, Italians, Dutch and Polish. Hungarians became numerous in late 1956 and early 1957.

In spite of the Diefenbaker Government's call for a slow-down at July 31, new arrivals for 1957 will total 275,000—a record in more than forty years.

These figures are a credit and an honor to the country. Canada's self-interest was served but we can claim an element of unselfishness. Up to a point anyway, Canada carried out an obligation to relieve the distressed and help the ambitious in other countries.

This is all to the good; but there are some in Canada who think that immigration could and should continue on an upward curve forever, just because it's a good thing in itself. This is nonsense. Canada is no longer a pioneer land but an industrial complex.

There's No More Free Land

It's all very well to say we should aim at the 1912-14 all-time immigration peak when 1.6 million entered the country in three years. But, as the late Sir Clifford Sifton (who organized the flow in the Laurier period) once said to a Canadian newspaperman, this human tide was drawn only by the offer of free land. It would never happen again, he added, until a similar once-in-a-lifetime chance of independence and wealth appeared.

There's nothing like that magnet and bonanza available in 1957. Today's "pioneers" don't go by horse-and-buggy to remote homesteads and hope for the best. They have to fit into a modern and complicated industrial civilization.

Another point is that Canada wants them to stay. Hundreds of thousands, maybe millions, of the early trail-blazers went back where they came from. There were periods in our history when far more were leaving Canada than coming into it.

Thanks to intelligent government, this is not such a period; but it could be one if uncontrolled immigration were allowed to cause dislocations.

The cleverest possible planners, public or private, can't always cope quickly with masses of new people of highly variegated skills, levels of skill and social adaptability. When there's a hitch in this delicate process of human and economic adjustment, the results can be unemployment, union agitation and inter-racial bitterness. These things are not good for Canada or its new inhabitants.

The new Ottawa Government thinks this is a good time, not to stop immigration, but to slow it down a little and size the position up. To us this looks like a reasonable proposition, in view of current signs. The government will of course expect to meet criticism and be prepared to answer it.

One Plant Can Do It But Three Firms Vie

By W. L. DACK

Two's company, three's a crowd,
More than that not allowed.

Three different companies are planning construction of new multi-million-dollar plants to produce the same chemical product — sodium chlorate—a chemical used chiefly in processing uranium and pulp and paper.

The Canadian market is growing fast. But even officials of the competing companies admit it's not growing that fast.

One new plant could likely look after all the foreseeable extra requirements for several years.

But no one is willing to drop out of the race.

The three competing companies:

1. Electric Reduction Co. of Canada, Toronto, sole Canadian manufacturer at the moment.

Company this week announced completion of engineering plans for a new sodium chlorate plant and an early construction commencement at an eastern Canada location.

Company added that its new $5-million plant completed this spring at Vancouver plus its existing facilities at Buckingham, Que., will cover Canadian demand until late 1958.

The new plant will look after all additional requirements for the next five years.

2. Standard Chemical Ltd., Montreal, also announced this week plans to construct a new plant for manufacture of sodium chlorate.

This would be Standard's first move into the field.

Plan is based on new chlorate cell developments made by **Columbia-Southern Chemical Corp.**, parent company in the U. S.

The new plant would be located at Beauharnois, Que.

3. Huron Chemicals, headed by Vincent Casson, Montreal management consultant, reportedly backed by two companies, one Canadian, one U. S.

First plans were to build a chemical plant at Cutler, Ont., near the big Blind River uranium camp.

Plans are now believed being revised to include a new Lakehead location and broader chemical operations.

Pep for Our Rocket Plans Seen in New Merger Talks

By CLIVE BAXTER

MONTREAL (Staff) — There was a move afoot this week which could advance Canada's rocket-powered missile program.

It started with discussions which may lead to a merger between **Liquid Carbonic Corp.** in the U. S. and **General Dynamics**, U. S. parent of **Canadair Ltd.**

An exchange of stock is contemplated, on a share-for-share basis.

Liquid Carbonic is 90% owner of **Liquid Carbonic Canadian Corp.** with 13 plants across Canada.

The point that interested aviation men in Canada was that Liquid Carbonic Canadian Corp. will open a Toronto factory next year to produce liquid oxygen.

This is a basic ingredient of the fuel used by the rocket engines of the new missile era.

It is an open secret that Canadair Ltd. is carrying out extensive missile development.

This week's move could assure close co-operation in the vital fields of rocket fuel and missile development in Canada.

Liquid Carbonic in the U. S. has total assets of $60 million and last year had sales of $35 million.

Big Gas Maker

It is the world's largest producer of carbon dioxide, and the fourth largest producer of oxygen, acetylene and medical gases in the U. S.

It has 46 plants in the U. S., 10 in South America, four in Mexico, two in Jamaica and one each in Cuba and Trinidad.

In Canada there are plants at Dartmouth, Quebec City, Montreal, Toronto, Windsor, Winnipeg, Edmonton and Vancouver.

The majority produce CO-2 gas or dry ice. Others produce oxygen, and acetylene gases for welding and medical gases.

What's in the 'BP' Name? Confusion and a New Spat

By RODNEY TOUCHE

BP (Canada) Ltd., two-year-old subsidiary of the U. K.'s giant **British Petroleum Co.**, once more faces a dispute over its name.

The company markets its products in Canada and elsewhere under the trademark BP, with the letters BP appearing in a shield.

"Those letters are our trademark," says another Canadian company, **Building Products Ltd.** Its trademark has the letters BP appearing in an oval design.

Both companies are Montreal-based.

Add to this the fact that Building Products Ltd., whose stock has been listed on the Montreal and Toronto Stock Exchanges under the board letters BP for 19 years, manufactures a number of products from derivatives of the petroleum industry.

Says President L. F. Long: "The use of the symbol BP has become generally accepted in financial circles as referring to our company.

"In recent months we have discovered that much confusion has arisen among our customers and business associates as a result of the new entry into the petroleum field calling itself BP (Canada) Ltd."

Building Products Ltd. has been granted a trial date on which to present its case fully in court. The company was recently denied in the Exchequer Court an interlocutory injunction.

For BP (Canada) Ltd. this what's-in-a-name argument is nothing new. When the company was first incorporated in Canada in 1955 a Calgary-based company, then known as British Petroleums Ltd., claimed the newcomer's name was a source of confusion.

That argument was not settled until early this year when the Calgary firm agreed to change its name to **Leamac Petroleums.**

As part of the settlement, the British Petroleum Co. said it would buy from Leamac unexplored leases priced at $250,000.

Inside

The Seaway 1957

One of Canada's greatest engineering feats is past the half-way mark. Here's an exclusive **FP** feature report on the St. Lawrence Seaway and Power Project ..... pp. 37-68

Inflation and Your Salary

Inflation is biting deeper into pay cheques. You may be among the hardest hit. Here's a special report .... p. 21

Supermarket Stocks

Gains in earnings and sales making these stocks favorites .... p. 5

Another Blow for Woolens?

U. S. tariff hike may mean new flood of imports to Canada .... p. 9

An Empire Grows Again

A drive for wider, expanded markets lies behind **A. V. Roe Canada**'s new move into the U. S. .... p. 4

Who's Ahead Now in Wild Race for New Car Sales?

By JACK McARTHUR

• **General Motors** has regained its "normal" margin of leadership in Canadian new car sales.

• **Ford** has widened its lead over **Chrysler** in the fight for second place.

• **American Motors** has lost some but not all of its share-of-market gains of 1956; **Studebaker-Packard** is down sharply this year.

• Share-of-market of British and European cars continues to edge higher.

These are the conclusions to draw from unofficial but authoritative market breakdowns for the first half of 1957.

Here's the company-by-company picture:

—General Motors products got 46.8% of new car registrations for North American-type vehicles. This represents a return to its 1955 position, following a long strike which knocked it down to about 40% for all of 1956.

—Ford products got just under 28% in the first half, a decline of 1½% of market from the full-year 1956 figure.

—Chrysler new cars hit just under 23%, compared with 26% for 1956. Its first-half share is slightly lower than 1955 but far above 1954, the last year of the company's sales doldrums.

—Studebaker - Packard was 1.4% in the first half, 2.4% for all of last year.

—American Motors was about 1.2% in the first half, 1.5% last year, 1% in 1955.

Distorted Picture

Comparisons aren't made with first half, 1956, because the General Motors strike so badly distorted the sales picture. Comparisons with all of 1956 may be slightly misleading for the same reason.

These percentages apply only to the market for North American-type vehicles.

Widening the basis of compari-

(Continued on page 3, col. 5)

Canada's Dollar Nears Record In Soggy 'Summer Doldrums'

By VINCENT EGAN

Canada's dollar this week was on the verge of reaching its highest value in modern times.

It was quoted in New York at $1.05 17/32 in U. S. funds early this week, just below its November, 1933, high of $1.05 20/32.

(For details, see p. 9.)

Traders attributed the downward drift of the U. S. dollar, in part, to "summer doldrums."

Sellers of Canadian dollars are said to be postponing commitments until the foreign exchange market appears to have become stabilized at a new level.

Heavier buying of Canadian dollars by Swiss and London interests has also been noted in trading during the past few days, although these purchases have not been of major proportions.

Recent large U. S.-pay bond issues by the municipalities of Toronto and Montreal have now been fully distributed, and no longer represent a downward pressure on the U. S. dollar.

While the discount on the U. S. dollar is nudging its modern peak, reached during the 1933 U. S. "bank holiday," it is well below its all-time high.

During the Civil War—July 11, 1864—it was quoted at a discount of 63¾% in Canadian terms.

Plenty of Steam Left in '57 Boom

Second Half Of 1957 Should See Some 1956 Records Broken Despite Soft Spots; And 1958 Could Be Best Year For Sales Of Many

By DALTON ROBERTSON

What's ahead for the rest of 1957? And for 1958?

There's enough steam left in the boom to keep Canada rolling along at a fast clip.

The second half of '57 could see some of 1956's records passed.

And 1958 could be another of our best years.

(For the composite opinions of leading executives on the outlook by industries, see p. 19.)

There are some soft spots, by industries and by areas. Seasonal construction slowdown in the winter could make some of the labor force figures look bad—for a time.

But the economy has plenty of elements of strength:

• **Capital spending** for new plant, new machinery and equipment has been the backbone of the boom—and there is little sign of let-up. Mid-year revisions added 3% to estimates of spending formed six months before. Outlays may hit $8.8 billion for an 11% year-to-year increase. Expenditures for repairs could add another job-generating, material-using $2.4 billion.

• **Consumer buying** shows no sign of easing. It's no spree, but with steadily higher personal incomes there seems to be every indication that there will be markets for industry's growing output.

• **Government spending** at all three levels is requiring all the men and materials that private industry can't use—and by its very size, putting some pressure on prices.

• **Resource development** promises continued expansion and it is still responsible to a large extent for pulling in U. S. and other investment dollars.

Tight money is a reflection of business' recent rush to build and expand, say banking economists. But industry's needs for cash and credit will be great enough in coming months to keep tight money tight.

This may be tough on some businesses, some individual borrowers, but it does mirror how fast-paced business is likely to be.

These are some of the soft spots:

• **Manufacturers' inventories** are creeping up, especially holdings of finished goods. This may be an indication that manufacturers are looking for big demands to come, but orders outstanding are not showing the same increase as inventories.

• **Car sales** — traditionally a straw-in-the-wind — are not on the road to a record year. Second quarter sales were a big disappointment.

• **Housing construction** is away below last year's record and this is hitting related industries such as appliance firms. But bigger commercial and industrial building is keeping the construction industry humming.

• **Inflation** in many industries is pushing up cost of labor and materials, putting pressure on profits.

• **Exporters** face some sales and profit difficulties; and the big premium on the Canadian dollar is causing much of the trouble (See p. 9.)

One sharp example is the mining industry, where the rising dollar premium is combined with a sharp drop in prices of copper, lead and zinc.

But even here the bottom appears to have been reached and such new developments as uranium and growing iron ore trade are filling the gap.

Ottawa Won't Nationalize TC Pipeline

OTTAWA (Staff) — Market rumors that **Trans-Canada Pipe Lines** may be nationalized by the Conservative Government get absolutely no support in informed quarters here. **FP** understands that Prime Minister Diefenbaker has not discussed nationalization with anyone in western Canada, as some of the rumors had it. Nor is there any reason to suppose that his government contemplates nationalization.

The parliamentary record shows however one point on which Mr. Diefenbaker was particularly critical of Trans-Canada's arrangements as approved by Mr. Howe. That was the proposed export sale to **Tennessee Gas Transmission Co.**, part-owner of Trans-Canada, at prices which Mr. Diefenbaker held to be below those charged to Canadians.

On this record, the new government is likely to demand a searching analysis of comparative prices before it would allow export to the U. S. The question of a Canadian export permit will not come up, of course, unless and until the U. S. Federal Power Commission approves Tennessee's application to import Canadian gas.

Another U.S. Steel Maker Bets on Our Low-Grade Ore

By RAY MAGLADRY

Another slice of Canada's vast low-grade iron ore potential is being earmarked for U. S. blast furnaces.

A giant U. S. steelmaker — **Jones & Laughlin Steel Corp.** of Pittsburgh—is betting on a Kirkland Lake taconite deposit as its next big source of iron ore on this continent.

(Details, p. 35.)

It underlines a relatively new but fast-developing interest by steelmakers in beneficiating-type ores—big hope of world steel interests for future ore supply.

The projected new mine development involves a leased property in Boston Township about six miles south of Kirkland Lake.

It could add $15 million a year to Canada's iron ore output and would inject a needed shot of economic strength into one of Ontario's greatest, but now troubled, gold mining areas.

Jones & Laughlin spokesmen told **FP** they had not yet established the "timing" for development to production, that this would depend on results of further work on the property and the company's future ore requirements.

Plans in Hand

But Canadian mining sources indicated that the U. S. firm had initial plans in hand that include:

• Further diamond drilling to test the 180-million-ton deposit already blocked out by about 20,000 ft. of drilling.

• Continuing metallurgical tests on the ore which averages a little over 20% iron in crude form, and which would concentrate at a three-to-one ratio.

• A possible production of one million tons of pelletized iron annually, on the basis of preliminary figures and results.

• All-rail shipment of pellets from Kirkland Lake to Pittsburgh, using the **Ontario Northland Railway, CNR** and **New York Central.**

How Healthy Industrials?

How healthy is Canadian business?

Just about every business category shows strength, it's indicated in the 31st annual edition of **FP**'s Survey of Industrials—just off the press.

The survey covers about 1,600 companies in a wide variety of industries.

As in previous editions, stock market prices are shown in the eight-year record of the price range of Canadian industrial stocks.

The survey of Industrials is published by **FP**, 481 University Ave., Toronto 2. Price: $3 a copy.

THE SIGNS AND PORTENTS

CLOSE TO $400,000-a-week market for Canadian slaughter cattle is now flourishing in the U. S. No less than 4,500 cattle have been exported in the last two weeks. Total for the first seven months of 1957 now exceeds 11,000. Compare this with total for the first seven months of 1956—a tiny 889. This market is preventing any drop in beef prices here.

* * *

HAIL AND DROUGHT are taking a severe toll of Prairie crops. Latest report from Saskatchewan indicates that wheat yield per acre is likely to be down 24.8% on 1956 unless conditions change. For barley the outlook is 30.4% down; for oats 28.8% down; for flax 23.6% down.

* * *

COSTLY DAMAGE done by viruses to such crops as tomatoes, potatoes, sugar beets, may be greatly reduced by a new method of detecting infection. Many times quicker than current methods of testing, it can indicate the start of disease almost a month before there are any outward signs.

* * *

SHORTAGE OF office help can be alleviated by encouraging employees to introduce their friends. Some companies are trying this—offering cash rewards to the employee for each friend hired.

* * *

RACE IS ON among manufacturers to capture the fast-growing market for 8 mm. movie cameras. The method? A lens that adjusts itself automatically to the prevailing light. **Bell & Howell** is soon to sell in Canada a "close to $200" model, needing no batteries. Four other leading makers are developing similar products. At stake: A market in North America which may top $800,000 this year.

* * *

HOW MUCH does tomorrow's weather mean to businessmen? You can get some idea from the fact that Toronto's weather office answers 3,000 calls a day for forecasts. A non-stop automatic telephone service is to be installed by June next year to handle the calls.

* * *

REALIZE THAT the piston engine is far from played out. **Ethyl Corp.** admits it is developing a compound which may boost piston engine power 20%. It's a derivative of manganese. Tests by **Curtiss-Wright** suggest it could speed piston airliners into the 400 mph class. It is logical to assume that auto engines will benefit, too.

* * *

AIRLINES ARE ALARMED at the soaring costs of tomorrow's giant jets. They wonder who will pay for the 2,000 mph airliners slated for 1970 by both Lockheed and Boeing. Closer to the ground, eight U. S. companies are now requesting a 6% hike in domestic passenger fares to start Sept. 28.

* * *

EXPECT MUCH wider use of glass blocks as a building material in Canada. Architects are now being offered a colored block intended for constructing walls rather than windows. Available in turquoise, green, yellow and coral, the blocks are claimed to provide good insulation and cut costs, since a glass wall needs no finishing on the inside.

* * *

EASILY PORTABLE gas-turbine engine has been developed in the U. K. It is light, self-cooling and adaptable to a variety of fuels, such as diesel oil and natural gas. It is expected to be widely used in oil fields.

* * *

HOW SOON THE MOON? The answer given recently in Ottawa by Dr. John Keystone, vice-chairman, Defense Research Board: "This century. It is not as far away as some seem to think." He added that the flight would take two weeks.

* * *

LONG BEFORE DAWN one day last week in the maternity ward of a Toronto hospital the only reading material available for anxious fathers-to-be: The Financial Post.

Stock Market Highlights

Industrials

Canadian **industrials** follow a sharply declining **Wall Street** farther into lower ground. Activity slackens on the decline to the dullest level in three years. Details on stocks that moved, p. 4. For chart on comparative Montreal-New York movement, see p. 3.

Mines and Oils

Mining issues show a steadier pattern while **oil** stocks weaken on profit-taking following previous strong advances. For details on some of the stocks that moved, see p. 34.

Mild buying interest in the mines centres on leaders. Lower-priced issues continue weak. Gains are widely scattered.

Western oil and gas stocks slip quietly with pressure heaviest in issues which paced earlier advances.

MERTON DURANT

Pension Plans
Estates Analysis
Employee Benefit Plans

THE CANADA LIFE ASSURANCE COMPANY

320 UNIVERSITY AVE.
TORONTO
EM. 8-7432

Life Sales Hit Record

During June, new life insurance purchased by Canadians reached $457.9 million for a 32% year-to-year gain.

The month's sales brought first six month total to $2,594 million, 33% more than that sold in the same period last year.

Ordinary life sales during June amounted to $378 million, up 29% from June 1956's $292.5 million.

Group life sales for the sixth successive month topped year-before totals. In June these came to $69.8 million or 57% higher than a year ago.

Industrial life sales continued to decline dropping to $10.1 million in June this year as against $10.4 million a year earlier.

Here is the record of ordinary life sales by provinces as compiled by the Canadian Life Insurance Officers Association:

	$000 1957	$000 1956
Alberta	26,900	21,700
British Columbia	32,700	27,700
Manitoba	15,500	12,200
New Brunswick	6,900	5,100
Newfoundland	2,200	1,700
Nova Scotia	9,300	8,800
Ontario	155,900	124,900
Prince Edward Island	700	700
Quebec	117,500	81,800
Saskatchewan	10,400	7,900
Here are sales figures by months:		
January	268,700	233,400
February	322,600	250,400
March	345,300	273,500
April	371,500	278,300
May	374,700	283,800
June	378,000	292,500
July	......	280,616
August	......	252,100
September	......	244,400
October	......	298,324
November	......	341,717
December	......	347,400

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FAIRBANKS-MORSE
FOR VALVES AND STEAM GOODS

Trend of Business

Overseas wheat clearances still down. In week ending July 10 these dropped to 4.9 million bu. (down 36.9% from year ago), lowering the Aug. 1 to July 10 total to 209.4 million bu. (—15.7%). Prairie farmers marketed 9.9 million bu. (—6.8%), but cumulative figure rose to 318.3 million bu. (+7.8%). Visible supplies on July 10 totaled 386.9 million bu. (+14.6%).

Maritime fishermen—their nets are straining. Landing of seafish, molluscs, and crustaceans in June increased to 85.5 million lb. (+12.8% over previous month) valued at $4.9 million (—13%), mainly due to smaller lobster catch. Groundfish landings rose to 49.9 million lb. (+25.6%) worth $1.5 million (+6.3%). Pelagic fish reached 26.5 million lb. (+17.8%) valued at $681,800 (+116%). Mackerel and alewives advanced to 7.5 million lb. (+2.1%) worth $241,000 (+186%). Lobster landings declined to 7.8 million lb. (—38.9%) valued at $2.5 million (—33%).

More vehicles northbound. Total foreign vehicles entering Canada in June was up 3.6% at 352,014 from year earlier. Entries were higher for all provinces except B.C. (down 3.7%); Newfoundland and Nova Scotia (up 4.9%), Quebec (up 15.7%), Ontario (up 1.4%), Manitoba (up 5.8%), Saskatchewan (up 0.3%), Alberta (up 1.9%), Yukon (up 22.9%). This makes the half year total 830,083 (up 7%).

Motor vehicle shipments show downward trend. Shipments in June totaled 37,448 units (—29.3% from year earlier). Vehicles for domestic market dropped to 34,930 (—29.7%) and those for export markets to 2,518 (—23.1%). Passenger car shipments dropped to 30,937 (—27.1%) and commercial vehicles to 6,511 (—37.9%). This lowers total for first half to 261,809 (—3.4%).

Beer sales take a dip. Domestic sales totaled 867,580 bbl. in June, a 2.6% decline from 890,785 bbl. in previous June, reports Dominion Brewers Assoc.

Wages and salaries continue upward spiral. Income received in wages, salaries and supplementary labor income in May advanced to $1,263 million. This was 3.8% higher than a month ago and 8% over previous May. This compares with a 4% increase in number of paid workers over month ago and a 4.6% rise from one year earlier. All the main categories chalked up gains over year ago.

Here's where labor income rose in May from year ago: agriculture, forestry, fishing, trapping and mining $86 million (+10.3%), manufacturing $398 million (+5.6%), construction $95 million (+3.3%), utilities, transportation, communication, storage, trade $330 million (+9.7%); finance, services $311 million (+10.7%); and supplementary labor income $43 million (+7.5%).

Rolled steel shipments are rolling ahead. Shipments in May reached 341,658 tons (up 9% from April). Major categories shipped were: building construction 59,428 (—0.4%), pipes and tubes 42,725 (+17.4%), railway operating 42,577 (+4.5%), merchant trade products 37,526 (+7.3%), wholesalers and warehouses 34,734 (—0.7%), machinery and tools 20,851 (—14.6%), container industry 16,782 (+91.4%), railway cars and locomotives 16,167 (—17.9%).

Leading mineral production—a many varied outlook. Production of 10 of Canada's 16 leading minerals was higher this April, but the four month total of only eight was greater than year ago. Of the 10 with April increases, copper and gold had lower cumulative output, while the six with lower production for month also showed lower cumulative production.

Output of these minerals rose. Results for April show: asbestos 107,266 (99,558) tons, copper 27,917 (27,801) tons, gold 369,071 (368,488) oz., lead 14,275 (11,685) tons, lime 117,206 (109,627) tons, natural gas 18.4 (13.2) million cu. ft., nickel 15,347 (14,341) tons, petroleum 15.3 (11.9) million bbl., salt 113,747 (95,144) tons, and silver 2.2 (1.8) million oz.

Output of these minerals dipped. Figures for April show cement 379,383 (428,586) tons, clay products $2.3 ($2.7) million, coal 984,690 (1.1 million) tons, gypsum 394,206 (414,733) tons, iron ore 308,070 (461,176) tons, and zinc 33,306 (34,800) tons.

Major Weekly Indicators

	Latest Week	Week Ago	Month Ago	Year Ago
Department store sales, % from year earlier	+5.2	+4.2	+5.4	+16.4
Carloading totals (cars)	87,268	74,611	83,697	95,899
Eastern Canada (cars)	58,613	51,955	55,080	63,321
Western Canada (cars)	28,655	22,656	28,617	32,578
Iron and steel mfg. (cars)	1,650	1,456	1,843	1,649
Ores, concentrates (cars)	12,438	10,937	9,012	11,646
Base metals (cars)	600	558	602	596
Lumber, timber, plywood. (cars)	4,231	3,666	4,731	5,212
Cement (cars)	1,376	1,070	1,213	1,379
Passenger car production (no.)	7,701	7,690	8,675	9,170
Truck production (no.)	1,249	1,663	1,715	2,160
Bus. fail. 4-week moving av. (no.)	28.5	29.3	33.7	23.3
Chartered Bank				
Personal Savings ($ millions)	6,206	6,183	6,161	5,887
Loans Oustanding ($ millions)	5,518	5,586	5,531	5,315
NHA mtge. hold'gs. ($ millions)	504	502	502	401
Bank of Canada holdings of				
Securities ($ millions)	2,455	2,482	2,424	2,386
Short-term govern. ($ millions)	1,230	1,261	1,208	1,043
Long-term govern. ($ millions)	1,169	1,166	1,161	1,298
Other securities ($ millions)	24	24	24	32
Canadian dollars (U.S. cents, av.)	105.326	105.166	104.918	101.794
T.S.E. industrial index	474.21	479.50	484.94	501.75
Yield, 114 stocks	4.97	4.93	4.94	4.48
Bank clearings				
Montreal ($ millions)	754	773	777	741
Toronto ($ millions)	1,152	1,101	1,141	949

Facts by the Month

	Latest Month Available	One Month Previous	Two Months Previous	One Year Previous
WHAT WE PRODUCE—				
In all industries (Index)	286.8	282.9	281.8	277.4
In factories (Index)	286.9	286.0	282.4	286.6
Total nondurable goods (Index)	248.9	245.5	242.7	244.1
Food & bev. (Index)	226.7	219.3	207.0	229.3
Textiles (Index)	200.1	211.0	173.1	207.5
Clothing (Index)	161.8	164.2	160.5	151.2
Chemical products (Index)	314.5	301.3	299.0	297.4
Total durable goods (Index)	346.2	349.2	344.5	353.0
Iron & steel products (Index)	331.3	347.2	337.6	327.8
Primary iron & steel (Index)	428.3	457.5	445.8	398.5
From mines (Index)	275.1	258.4	263.8	234.5
Metals (Index)	144.6	139.7	139.2	129.0
Nonferrous smelting, refining (Index)	284.2	276.8	293.7	239.7
Gold (Index)	110.2	105.1	106.2	106.8
—From farms				
Cattle delivered (000)	130	166	138	136
Hogs graded (000)	392	508	425	494
•Flour (Index)	124.1	124.5	135.4	142.1
—From sea				
•East Coast catch ($000)	7,150	2,619	1,956	7,740
•West Coast catch ($000)	1,863	593	860	1,764
—From forests				
•Newsprint (000 tons)	532	573	555	586
Pulp (000 tons)	882	924	834	850
—In powerhouses				
Electricity (million kwh guaranteed)	7,618	7,524	7,823	6,896
WHAT WE SELL—				
Retail sales ($ millions)	1,294	1,227	1,163	1,278
Dept. store sales ($ millions)	108.6	105.2	94.1	102.8
Wholesale sales ($ millions)	752	660	680	741
•Mfrs. outstg. orders ($ millions)	3,087	3,120	3,177	3,037
Pass. car sales (units)	44,780	46,045	38,193	53,870
WHAT'S ON HAND—				
•Mfrs. inventories ($ millions)	4,777	4,801	4,779	4,281
•Dept. store stock sale ratio	2.8	2.7	2.8	2.8
SPENDING, SAVING POWER—				
•Labor income ($ millions)	1,263	1,217	1,205	1,169
Dividend payments (Index) (annual rate)	327.8	328.4	329.9	301.8
JOBS—				
•Persons with jobs (000)	5,834	5,687	5,442	5,647
•Jobless seeking work (000)	162	194	306	119
•Do. (% of labor force)	2.7	3.3	5.3	2.0
CONSTRUCTION—				
Contract awards ($ millions)	237	236	196	204
FOREIGN TRADE—				
Exports ($ millions)	445	372	362	435
Imports ($ millions)	557	540	472	550
MONEY—				
Money supply ($ millions)	5,812	5,885	5,974	5,791
Cheques cashed ($ millions)	18,850	17,970	15,214	18,290
Life insurance sales ($ millions)	375	372	474	280
Notice deposits ($ millions)	6,611	6,653	6,597	6,329
Current public loans ($ millions)	5,482	5,392	5,357	5,184
PRICES—				
Consumer price (Index)	121.6	121.1	120.9	117.8

Index based: production wholesale sales 1935-39—100; consumer price index 1949=100; manufacturers' inventories outstanding orders Dec., 1952=100.

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
Steel ingots and castings (000 tons)	450.1	434.1	1,816.9	+6.3
Primary copper (000 tons)	26.4	29.4	139.9	—10.3
Nickel (000 tons)	16.2	15.2	79.9	+6.4
Lumber exports (millions fbm.)	269.8	338.6	1,032.4	—19.1
Lumber (millions fbm.)	477.2	483.5	2,141.9	—11.5

Date of issue for your file, The Financial Post, Aug. 3, 1957.

Feralco Ltd. Acquires 95% Standard Clay

MONTREAL (Staff) — **Feralco Industries Ltd.**—a holding turned management company — has acquired 95% of the common shares of **Standard Clay Products Ltd.** through a share exchange deal.

Standard Clay, a producer of clay and concrete pipe and related products, has manufacturing plants at St. Johns, Que., and New Glasgow, N.S.

Under terms of the deal, Standard Clay shareholders received five Feralco shares and one share of **B. J. Coghlin & Co.** for each Standard Clay share held.

Shares of Feralco itself have been accepted for listing on the curb of the Canadian Stock Exchange and will be called for trading on Monday.

For Feralco, Standard Clay represents the second venture into the manufacturing field. It already owns **Smith's Falls Malleable Castings Ltd.**, the only malleable iron producer in Eastern Canada.

A public company since 1951, Feralco was originally a holding company with a substantial portfolio of investments including a fairly large block of B. J. Coghlin.

At Nov. 30, 1956 company capitalization included 100,000 cumulative redeemable 6% preferred shares ($10 par) and 500,000 common shares, 205,000 of which were issued.

Current assets were $399,049 and current liabilities $181,604 leaving a working capital of $217,444.

Net profit for the year ended Nov. 30 was $54,360, 12% higher than in the previous year.

Since November, to facilitate acquisition of Standard Clay, company has disposed of its investment account at a profit of $30,276. At Nov. 30 the account had a market value of $170,500 and was carried on the company's books at a cost of $156,388.

Disposal of the investments and acquisition of Standard Clay has raised balance sheet equity of Feralco common stock from $2.16 per share to approximately $3.69 per share, it is reported.

Company says operations at Smith's Falls Malleable Castings continue to be satisfactory and that earnings from Standard Clay are expected to exceed revenue formerly derived from the investment account.

Net profit of Standard Clay in 1956 was $16,027 compared with $2,745 in 1955 and net loss of $16,844 in 1954.

To Offer Part Hudson's Bay Oil-Gas Stock

Final steps to pave the way for first direct Canadian participation in **Hudson's Bay Oil & Gas Co.** are under way.

Approval is being sought in Canada, the U.S. and the U.K. to issue, 1,750,000 additional shares, it is announced by Governor W. J. Keswick of **Hudson's Bay Co.**

Of the new shares, 1,312,500 or 75% will be offered to shareholders of **Continental Oil Co.**, and 437,500 or 25% to shareholders of Hudson's Bay Co., in proportion to their holdings.

Continental owns 75% of the oil and gas company's stock, Hudson's Bay Co. the remainder.

Authorized capitalization of the subsidiary was recently increased to 25 million shares, par $2.50. Previously, it had consisted of four million $10 par shares authorized, of which two million were outstanding.

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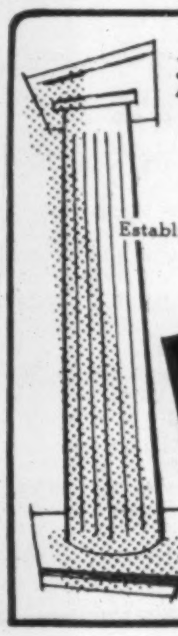
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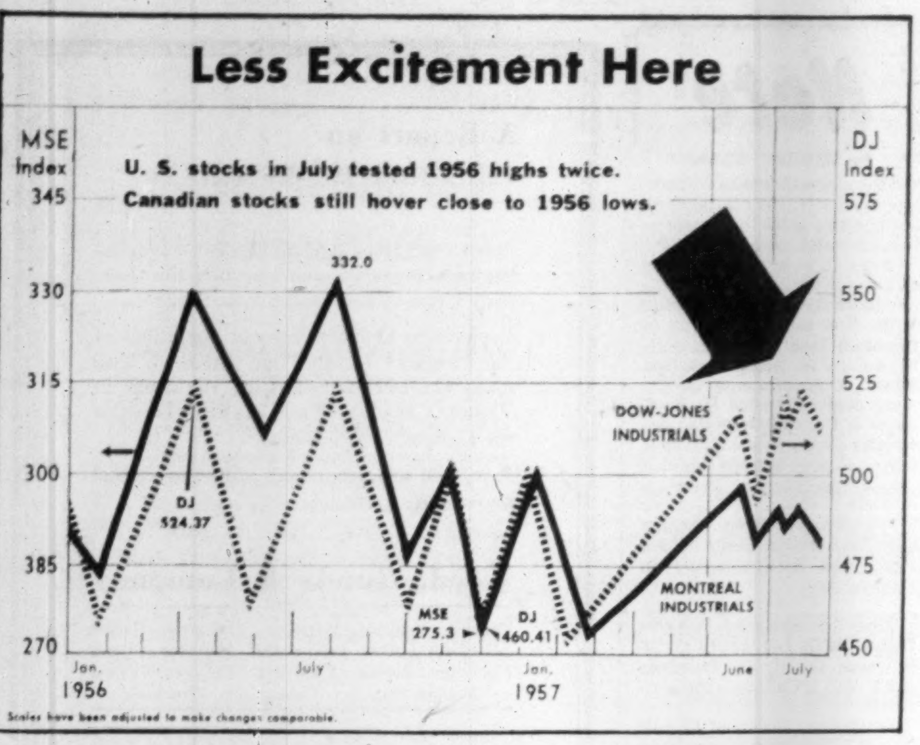

U.S. Markets Outstrip Ours As Investors Here Hold Off

By VINCENT EGAN

Canadian stocks haven't got off the ground in the market's most recent climb.

Although prices in U. S. markets are down again, U. S. stocks a few days ago were trying to break through their record 1956 highs. Canadian stocks, however, were staying well below their 1956 peaks, and not far above the lows.

The climb in both Canadian and U.S. markets got under way in February, and continued — with the usual minor interruptions — for about four months.

This springtime boom carried U.S. market prices up 14%. The Dow-Jones industrial average rose from a low of 453.07 Feb. 12 to a high of 516.81 June 8.

Canadian stocks, on the other hand, were not so eager. Using the Montreal industrials' performance as an indicator, the increase here was less than 9%, from the Feb. 26 low of 273.4 to the June 17 high of 289.6.

That peak was well below last year's high point of 332.0 Aug. 3, while the Dow-Jones has been nudging its 1956 (April 9) high of 524.37.

The Toronto Stock Exchange industrials index was more bullish, with a rise in the February-June period of 11%. But it too has been sluggish since, in a period in which U. S. stocks have been strong. July 29 TSE index was 474.83, against a high of 506.06 in 1956.

What accounts for the difference in performance?

Statistical Reason

Part of the reason, of course, is statistical. Each of the two indices contains a relative handful of seasoned stocks, chosen from a list of hundreds of industrial issues.

The stocks in the index do not necessarily rise and fall in unison either with the rest of the market or with each other.

Another part, apparently, is the growing conviction among U.S. investors that the anti-inflationary forces are weakening. To cope with the expected erosion of the purchasing power of the dollar, more and more investors are turning to common stocks.

One result is that average bond yields in the U.S. are higher than average stock yields for the first time in a quarter of a century.

Canadian investors are either less convinced of a sudden new upward inflationary spiral, or are slower to act on that conviction.

And while many Canadian economic indicators are encouraging, others may be causing wary investors to avoid further commitments in stocks until the business outlook becomes clearer.

Industrial production, mining output, retail and wholesale sales —these are just some of the major fields of business in which activity this year is running ahead of 1956.

But passenger car sales, for instance, are down — 44,780 in the latest month, compared with 53,870 a year earlier. Manufacturers' inventories are higher by $500 million than in 1956.

Earnings Good

First-half earnings reports in 1957 have been good on the whole, but spotty. Dividend distributions have been steady, with few notable increases over last year.

If the U.S. investors are correct in their apparent belief that more inflation is coming, and if that belief continues to be evidenced by heavy buying of common stocks, Canadian markets could soon "catch fire" too.

If that happens, there could be cause for more excitement here than in the U.S. On technical grounds, Canadian stocks have considerably more room to rise before encountering resistance at last year's highs.

Look For It Here

August 3, 1957

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Who's Ahead Now in Wild Race for New Car Sales?

(CONTINUED FROM P. 1)

son to include all new cars, British and German imports got almost 11% in the first half. In all 1956: 9%. In 1955: 6½%.

Although new car sales lagged in Canada during the second quarter compared with year-ago, the first-half totals were big.

Canadians purchased 224,000 new passenger vehicles, probably worth around $640 million.

Sales in the record first half of 1956 hit 229,000 worth $638 million.

Almost 200,000 of the new car registrations in the first six months this year were North American types. The rest were almost all British and German makes.

For many months now, Canadian car-selling experience has differed from that in the U.S.

January-June, 1957, proved no exception.

GM Sale Down

The U.S. market this year has been agog about the sales decline for General Motors products.

GM's percent of registrations in the first five months in the U.S. was 45.3%, down from 52% in the same period a year before.

Meanwhile Ford and Chrysler have shown big gains south of the border.

In Canada, however, GM quickly regained its market position following the strike and has retained it.

Chrysler which has shown the most spectacular increase in the U.S. has lost a little ground in Canada.

Here it's fair to point out that Chrysler of Canada sales in 1955 and 1956 outperformed Chrysler Corp. of the U.S. The Canadian subsidiary still possesses a larger share-of-market than its U.S. parent.

On the production front, Canada is entering a period of low output, as plants shut down for holidays and—a little later—change over to production of 1958 models.

Canadian output to July 20 was 247,000 cars and 50,086 trucks.

At the same time in 1956, 257,000 autos and 63,300 trucks had rumbled off assembly lines.

General conclusion:

Canadian sales still seem to be heading for a year-end figure somewhat below the 407,000 of record 1956, possibly — almost certainly, some say — above the 387,000 of second-best 1955.

Production has been geared closely to sales, with the odd market soft-spot appearing.

Bell Seeks Rate Boost

Bell Telephone Co. of Canada plans to apply to the Board of Transport Commissioners soon for higher rates, President T. W. Eadie announced this week.

First half net profit amounted to $1.18 per share compared with $1.24 in first half of 1956.

The president said company faced higher financing costs and tax levels and higher wage and material costs. "Earnings from now on will not be in keeping with the needs of the business."

Thorncliffe Plan Okayed Sent to OMB

The town of Leaside and Metro Toronto Council have cleared the way for the proposed $75 million development scheme of **Thorncliffe Park Ltd.** at Leaside.

They were the last of interested parties to approve the new zoning by-law and development plan. Next step: Ontario Municipal Board draft approval.

Leaside Mayor C. H. Hiscott expressed hope that construction will start this fall.

Metro agreed to issue debentures on behalf of Leaside for $1,714,000 for all municipal services, including a new 50-ft. bridge across the Don River.

Thorncliffe Park Ltd. was incorporated in Sept. 1955, and acquired about 390 acres, mostly in Leaside, for a residential, commercial and industrial development.

Plans include 10-story office buildings, light industrial plants, and apartment buildings up to 18 stories with a minimum of 4,500 suites for approximately 12,000 people expected to reside in Thorncliffe Park.

100,000 More Immigrants Still to Arrive This Year

By MICHAEL BARKWAY

OTTAWA (Staff) — Arrival of immigrant workers will taper off, it is hoped, between now and the autumn.

It won't end abruptly.

The government still expects to admit about 100,000 new immigrants in the second half of this year.

Added to about 175,000 in the first half this makes a massive annual total, far exceeding any year since 1913, and nearly 40% higher than the total forecast by former Immigration Minister Pickersgill.

The so-called "cut-off" date has been moved forward by two months from the end of September to the end of July.

This doesn't formally exclude as many as the first reports suggested.

It stops the arrival after Aug. 1 of those Europeans who thought of coming to Canada to take their chance of finding a job.

Among those not affected are:

- Europeans who are "sponsored" by someone in Canada: i.e. an employer or close relative who will undertake to support them.
- Families of European immigrants who are able to send for them.
- Europeans who had already received a visa or were in process of getting one when the new order arrived.
- U.K., French or U.S. immigrants, who don't need visas.

British families, for example, who had their passage booked for August or September can still come if they are determined enough. But they will be advised that the chances of finding jobs may be pretty tough once the summer's over.

Seemed Abrupt

The government's public announcement of the July 31 "cut-off," coming so near the date itself, made the change of policy seem more abrupt than it really was.

It had been foreseen in official quarters ever since the size of the influx was realized.

An inter-departmental committee of officials formally recommended the cut-off to the former minister, Mr. Pickersgill.

But he decided to leave the decision to the new government. This inevitably meant a little more delay.

The decision to stop Europeans for open placement was reached early in July and sent to overseas offices then.

The government hesitated longer about cutting off the Hungarian refugees.

But a week later it reached the conclusion that even humanitarian considerations couldn't justify bringing any more than will have arrived by the end of August.

Any sober view of prospects must have supported the federal officials' advice that winter employment would become very difficult if immigrant workers continued to arrive at the pace of the last three months.

The "stop-and-go" basis of immigration had its origin in Mackenzie King's 1947 views.

The flood of new arrivals since the middle of last year marks the high point of its "go" phase. The July 31 cutoff marks the earliest switch to the "stop" phase.

Canada's working population increased 4% between June and a year ago.

Two-thirds of the additions are immigrants, and most of the rest are women.

Even this high rate presents no really intractable problem during the summer. But it would be irresponsible and unfair to ignore the unemployment problem that may arise in the winter.

That's the basis of the government's decision on the short-run view it had to take.

On a long-run view the question is: Can Canada afford to accept this logic?

The country is entering a new phase when natural increase will provide a fairly substantial annual growth to the labor force.

But Canada's need is not just to fill the jobs which are vacant today.

It needs to increase the population so that more jobs will be available tomorrow.

This is going to require a fundamental revision of thought about immigration, which should be easier for the Conservatives than for Mackenzie King's political heirs.

Ontario Plants Will Produce New Fertilizer

MONTREAL (Staff) — A new type of moisture-free fertilizer is to be produced at three of the Ontario plants of **Canadian Industries Ltd.**

It is produced by what is known as Continuous Granulation Process, and the final result is a "non-caking homogeneous compound fertilizer."

The plants are located at Hamilton, Chatham and Ingersoll, and serve the farm markets largely in central and southwestern Ontario.

The Ingersoll plant is operated by **William Stone Sons Ltd.**, which was purchased by CIL last year, and is now operated as a wholly owned subsidiary.

Installation of the necessary equipment at each location will begin immediately and all projects, company states, are expected to be completed early in 1958.

Design and construction are under the supervision of CIL's engineering department.

The new process allows production of the important moisture-free fertilizer which can be applied easily and uniformly by the equipment already used by farmers.

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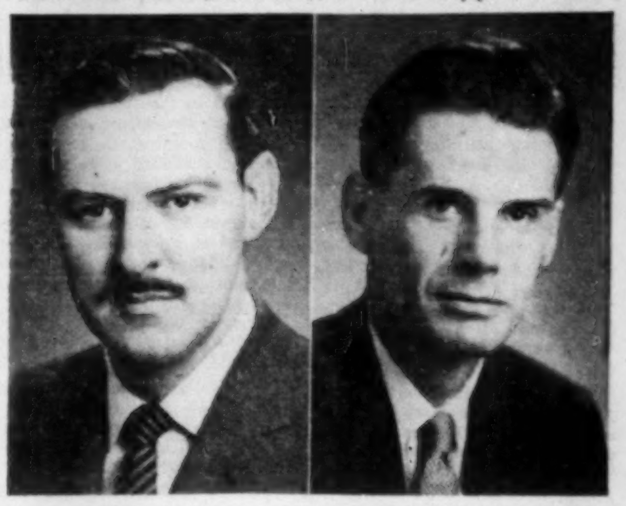
ANNOUNCEMENT

Dunham-Bush (Canada) Limited Appointments



M. K. McLACHLAN — A. L. GLOVER

Mr. R. M. Mitchell, President of Dunham-Bush (Canada) Limited, announces the appointment of Mr. M. K. McLachlan as Sales Manager, Heating and Mr. A. L. Glover as Sales Manager, Cooling.

Mr. McLachlan served as Advertising and Assistant Sales Manager before assuming his present post.

Mr. Glover was formerly associated with Carrier Engineering Limited.

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LA PRESSE

THE GREATEST SELLING FORCE IN FRENCH CANADA

A. V. Roe's U.S. Deal Seen Drive for Bigger Markets

Further diversification and a drive for expanded markets were seen behind an agreement announced this week by the multi-million dollar **A. V. Roe Canada** empire.

Principal feature of the agreement is that the products of **Canadian Applied Research Ltd.**, Toronto, a subsidiary of A. V. Roe, will be manufactured and distributed in the U.S. by the **General Precision Equipment Corp.**, New York.

The agreement involves **Link Aviation Inc., Kearfott Co., General Precision Laboratory Inc.** and **Askania Regulator Co.**, all members of the General Precision group.

Under the agreement, Canadian Applied Research will also enter into the manufacture and sale of a wide range of the group's products in Canada.

Canadian Applied Research has been responsible for the design and development of many important electro-mechanical systems and products.

These include the R-Theta Computer automatic navigational system, used in the Avro CF-100, a variety of specialized armament controls, an automatic ice detection and shedding system and a high speed air position indicator.

New Machines

The company has also developed many of the cameras and recorders adopted for Canadian participation in the International Geophysical Year.

Many of the products of the General Precision group cover the same field.

Link Aviation is developing training aids for supersonic aircraft as well as producing components for use in automatic industrial control systems.

Kearfott, Askania Regulator and General Precision Laboratory are also developing and manufacturing electro-mechanical controls for aircraft and industrial use.

"The agreement will be mutually advantageous," said A. V. Roe Canada's President Crawford Gordon, Jr., this week.

"The engineering and manufacturing experience of the GPE group . . . will considerably strengthen and enhance the technical competence and scope of productivity of Canadian Applied Research."

Consolidated net sales of General Precision Equipment Corp. for the last fiscal year were $153 million. A. V. Roe Canada's consolidated net sales reached $202 million. Both are holding companies for groups of operating firms.

Toronto & London Rights Offered

Rights to buy new shares at $2.50 each are being offered to shareholders of **Toronto & London Investment Co.** on the basis of one share for every five held. Rights expire Sept. 9.

Company's net profit of $297,012 for year ended March 31, 1957, was 37.5% higher than previous fiscal year's net of $215,990.

Market value of company's investments has increased by some $382,000 since March 31. Net profit realized on sales of securities in this period is $120,000.

Rights issue will add another $1.4 million to the $9.8 million now employed in the investment company's operations.

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Why They're Moving

Facts and comment on what's going on in the market and rumors behind some of the moves.

BY FRANK KAPLAN

Analysts report some evidence of selling pressure in more conservative issues which often are considered "safe." The reasoning here is that investors are tending to switch from good grade but low-yielding common stocks into some higher-yielding securities, bonds.

Some of the banks and utilities have been among issues affected by this type of switching. Here's how they have traded:

	Latest Price. $	Mid-July $	Yield %	1957 High $	1957 Low $
Bank Montreal	46½	47¼	3.44	54¾	46
Commerce	49¼	50	3.24	56	45
Nova Scotia	54	56½	4.07.	60	54
Royal	71	71¾	3.17	77	64
B. C. Power	47½	51	2.95	53	41
Shawinigan	86½	91	2.31	96	80

* * * *

THE STREET IS TALKING ABOUT — the sharp swings in **Trans Mountain** resulting from loss of the California market to this oil pipeline. This sudden disappearance of important market emphasizes the international nature of the oil business. It results from a sharp drop in tanker rates now that the Suez Canal is open.

Earlier this year, Trans Mountain sold as high as $145¼. A few weeks ago it was $110. And in recent trading it touched a low of $96 before bouncing back to $102.

Other pipelines move in narrower range with yesterday's favorites like **Interprovincial Pembina** tending lower. Interprovincial at $53½ compares with a recent $55 and Pembina at $13½ is down from $15. On the other hand, **Trans-Prairie** bounds ahead to $31¾ from around $26, reflecting growing interest in developments in the Weyburn field of Saskatchewan which this company services.

* * *

Switching by U.K. investors is reported by brokers. The U.K. investor who wishes to buy a Canadian stock must now pay a premium of about 25%. A few weeks ago, before a crackdown on trading in dollar securities, this premium amounted to only about 7%-10%. This means that any buying presupposes at least a 20-25% advance in price unless the premium persists at a high level. The rising premium also reflects the continued demand for Canadian issues.

But the U.K. investor now appears to be swinging towards lower-priced issues, particularly western oil and gas stocks. To obtain necessary dollars, he is selling some of his industrial stocks. **A. V. Roe Canada** (part of the Hawker-Siddeley group) is one of the "sales", brokers report. Bought heavily by U.K. investors before the clamps went on, it drops $2¾ to $21¼ from a recent $24 level. **Algoma Steel** is also affected with a decline of $3 at $35 from around $38.

* * *

Mid-year earnings reports present a mixed picture. As expected, pulp and paper firms show lower profits. **Abitibi** reports a six months net equal to $1.51 a share, down from $1.85 a share in the same period last year. The stock at $30 compares with a recent $32 level.

Fraser Companies net slips to $1.14 a share from $1.52 and the shares at $26¼ compares with $28 recently. **Southom** profit drops to $1.77 a share from $2.34. The shares have tended easier recently, currently at $51¼ as against $54.

Among brighter reports were **McColl-Frontenac** which reported net equal to $2.17 a share, up from $2.02 a share although outstanding capitalization increased. McColl shares at $80, are down from $84. **Combined Enterprises** had net up at 92c a share from 85c. The shares at $11½ are down from a recent $13.

* * *

OTHER MARKETS—Over-the-counter markets follow general board pattern with gas pipeline stocks continuing weak. Illustrating the extent of the dip is an index on gas pipeline movements compiled by **Kippen & Co.** This shows a drop of about 6% in the past few weeks.

Lakeland Natural Gas is first of the stock-bond units among the gas lines to dip below its issue price. Initially offered at $120, the units are $119-120. They hit $136 briefly. Common holds up at $6¼-$6¾.

Trans-Canada units at $143-145 are down about $2 on the week but the common shows a slightly brighter trend at $37-$37½. **Northern Ontario Natural Gas** units at $31½-$32½ also lose about $1 and the common is steady at $18-$18½.

Westcoast Transmission units lose about $2 ($15 in three weeks) at $196-$200. The common is slightly lower at $41-$41½. **Alberta Gas Trunk Line** holds steady at $18-$19.

Manufacturers Life holds at $228-$235 following news of a plan to buy in shares (**FP**, July 27).

THE INVESTMENT FUNDS

Canadian Investment Fund Adds to 13 Common Stocks

MONTREAL (Staff) — **Canadian Investment Fund Ltd.** net assets at June 30, 1957, reached a new high of $93,688,546, up $6,698,791 or 7% from $86,989,755 at March 31.

Continuing high rate of the purchases of the fund's shares during second quarter boosted total number outstanding at June 30 to 10,199,497, up 323,991 from the end of the previous quarter.

As a result net asset value per share at mid-year was $9.18, against $8.80 a month earlier.

During the half year, profits realized through sale of investments amounted to almost $5 millene" polyester fibre were higher lion. The June 30 market value average cost by almost $31.5 million.

In the second quarter, the fund's holdings were increased in 14 Canadian stocks and three bond issues. There were reductions in holdings of two common stocks and two bond issues. At June 30, portfolio contained 89 individual issues with government bonds, preferred stocks and cash representing 22.7% of total net assets and common stocks the remaining 77.3%.

A dividend of 11c per share is payable Aug. 1 to shareholders of record July 15.

This is similar to the dividend declared in the corresponding period last year and brings to a total of 27c per share the amount paid in the first three quarterly dividends in 1957.

Here are changes in holdings of Canadian issues made during the second quarter:

	Shares Held at June 30 1957	Change Since Mar. 31 1957
Banque Cdn. Nationale	4,000	+1,500
Bell Telephone	71,000	+2,775
Canada Packers, A	10,000	+1,200
Cdn. Bronze	9,000	+650
CPR	59,000	+2,100
Dom. Bridge	45,000	+5,000
Dom. Glass	11,000	+1,000
Hudson Bay M. & S.	20,000	—2,000
Imperial Tobacco	70,000	+9,000
Internat. Nickel	43,000	—1,000
Interprov. Pipe Line	20,000	+400
McColl-Front. Oil	12,025	+25
Moore Corp.	5,000	+975
Price Bros.	30,500	+1,200
Shaw. Water & Pwr.	31,800	+300
Hiram Walker-G. & W.	46,850	+1,850

Silverwood Dairies Net Increases 9%

Silverwood Dairies Ltd., London, Ont., net profit for the quarter ended June 30 was 9.4% higher at $402,144 ($367,448 in like period last year).

Earnings were equal to 38c (35c) per share, based on 1,061,929 (1,042,959) Class A and B shares outstanding.

Sales increased to $10,277,216 ($9,635,295).

TELEVISION-ELECTRONICS FUND, INC.

PORTFOLIO INVESTMENTS IN SECURITIES on April 30, 1957, had a market value of $145,650,319 against cost of $108,939,414 leaving an unrealized appreciation of $36,710,905.

Of the total market value, $132,990,587 represents investments in common stocks of over 142 companies. $5,197,709 are investments in bonds and preferred stocks of 15 companies.

51 Common Stockholdings, listed below, each had a market value of over $1,000,000 on April 30, 1957.

	Shares		Shares		Shares
ACF Industries, Inc.	43,000	*Eaton Mfg. Co.	20,000	National Acme Co.	17,200
*Address.-Mult. Corp.	20,000	*Ex-Cell-O Corp.	23,800	*Nat'l Cash Register Co.	45,800
*Allis-Chalmers Mfg. Co.	45,000	*Food Mach. and Chem.	30,000	North Amer. Aviation	55,000
*Amer. Tel. & Tel. Co.	14,000	*Garrett Corporation	22,200	Northrop Aircraft, Inc.	50,000
*Ampex Corp.	31,300	*General Dynamics Corp.	30,000	*Otis Elevator Co.	67,000
*Babcock & Wilcox Co.	38,000	*General Electric Co.	30,000	*Paramount Pictures	54,000
*Bendix Aviation Corp.	16,600	*General Mills, Inc.	26,000	*Pullman Inc.	30,000
Boeing Airplane Co.	39,000	*Gen. Railway Signal Co.	39,600	*Radio Corp. of America	65,000
*Burroughs Corp.	33,400	*Gen. Telephone Corp.	29,100	*Royal McBee Corp.	30,300
Columbia Brdcstg. "A"	50,600	*Gen. Tire and Rubber	15,700	*Sperry-Rand Corp.	73,800
*Corning Glass Works	35,000	*Goodyear Tire & Rubber	30,000	*Square D Company	68,800
*Curtiss-Wright Corp.	30,000	Hazeltine Corporation	43,000	*Stewart-Warner Corp.	50,000
*Cutler-Hammer, Inc.	19,400	*International Bus. Mach.	6,250	*Sylvania Electric Prod.	27,000
Douglas Aircraft Co.	28,000	*Int'l Nickel of Canada	19,000	*Thompson Products, Inc.	25,200
*Dresser Industries, Inc.	30,000	*Minn.-Honeywell Reg.	25,000	*United Aircraft Corp.	15,400
*Du Pont (E.I.) & Co.	5,200	*Minn. Mining & Mfg.	16,200	*Westinghouse Electric	30,800
*Eastman Kodak Co.	27,800	*Motorola, Inc.	32,000	Zenith Radio Corp.	22,000

*Manufacturing Plants, Subsidiaries, Distribution Offices and Warehouses in Canada.

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TELEVISION SHARES MANAGEMENT CORPORATION, 9 Adelaide Street E., Toronto 1, Ontario. EM. 4-9277

Stelco Sales At New High In First Half

During first half of this year production of steel by **Steel Co. of Canada** was only slightly less than the record level for same period last year.

As a result of drawing upon inventory sales were higher.

After a promising start in the first quarter there has been a drop in total demand for steel similar to that in U.S. although not quite as sharp.

Sales of merchant wire products by Stelco, such as nails and barbed wire, have been adversely affected to a "serious degree" by imports from Europe, Chairman H. G. Hilton states in a dividend letter to shareholders.

While compared with 1956 price of steel scrap has declined, most other costs have risen, notably wage rates which were increased in the second quarter by about 6% in accordance with the two-year agreements made with the unions last year.

Moderate increases in selling prices of rolling mill products have been necessary to offset, partially, higher production costs.

Generally speaking The Tariff Board has gone a long way towards recommending implementations of the proposals of the primary steel industry for the improvement and simplification of the tariff structure.

First payments to **Canadian Javelin Ltd.**, including funds for the redemption of the outstanding bonds of the **Wabush Lake Railway Co.** were made in June.

Work has already begun on further exploration of the properties and extensive ore testing will be carried out this year so development can be planned.

Shawinigan Net Up 11%

MONTREAL (Staff) — Consolidated net profit of **Shawinigan Water & Power Co.** and wholly-owned **St. Maurice Power Corp.** for the first six months of 1957 was $6,039,662 or $2.16 per common share, up 11.2% from $5,430,668 or $2.02 per common share in the corresponding period last year.

First half revenue from power sales at just over $28.5 million was up 7.5% and dividends from subsidiary and other companies at almost $1.1 million were up $429,867 reflecting Shawinigan's increased holdings in **Southern Canada Power Co.**

Total operating expenses, including depreciation, were up 12.8%. More than half the increase was accounted for by additional purchases of power.

	1957 $	1956 $
Revenue from power sales	28,578,615	26,574,249
Add: Other revenue	2,334,902	1,407,986
Less: Operating, maintenance & gen. expenses	8,234,692	7,525,298
Power purchased	4,245,138	3,108,720
Taxes (oth. than inc.)	1,806,189	1,686,525
Water storage rentals	731,344	721,116
Depreciation	3,740,500	3,582,500
Int. on funded debt	2,383,338	2,076,123
Income taxes	3,732,654	3,851,285
Net profit	6,039,662	5,430,668

Dominion Steel Earnings Hold

MONTREAL (Staff) — Earnings of **Dominion Steel & Coal Corp.** for the first six months of 1957 compared favorably with those in the corresponding period last year, according to President C. B. Lang.

In a letter to shareholders, Mr. Lang notes that demand for steel continues to ease. To keep company's plants operating as close to capacity as possible, it has been necessary to accept business where—with higher labor and material costs—the margin of profit is smaller, he states.

Physical volume of back orders is termed satisfactory and indicates, barring unforseen difficulties, a satisfactory year.

Last month the company put its new "F" open hearth furnace into operation at the Sydney, N.S. works. This raises the corporation's over-all steel making capacity to a record high of over one million tons per year.

Work has been started on a new machine shop in Sydney and the **Canadian Bridge** plant in Montreal is on schedule.

Construction of new plant and office facilities in the Toronto area has progressed rapidly with the result that occupancy and operation may take place about the end of the third quarter.

At June 30, 1957 company has 2,385,249 common shares outstanding compared with 2,107,251 a year earlier. Increase is due, in the main, to exercise of conversion privileges of the 4% and 4¼% convertible debentures.

Kimberly-Clark Net Increases 3%

Kimberly-Clark Corp., Neenah, Wis., earnings and sales both reached new highs in the year ended April 30, 1957.

Net profit rose 2.9% to a record $24.8 million ($24.1 million year earlier) while sales increased 10.1% to a record $310.7 million ($282.2 million).

Company is the U. S. parent of **Kimberly-Clark Corp. of Canada**, a wholly owned subsidiary.

ATLAS STEELS LTD. has issued 1,738 shares on conversion of the 1951 debenture issue and option agreements to key employees. There were 1,080,390 shares outstanding as at July 16.

Note

By VINCENT EGAN

After several weeks of relative inactivity, the capital market is again gathering momentum. Several new issues are reported to be in various stages of preparation.

One of the more interesting is the first public financing of **Premium Iron Ores Ltd.**, selling agency for **Steep Rock Iron Mines.** A syndicate of investment dealers headed by **A. E. Ames & Co.** and **Dominion Securities Corp.**, it is understood, will soon offer 460,000 common shares (par 20c) of Premium at $7.85.

Premium has been working with German interests to develop iron ore properties in Ungava Bay.

* * *

Three offerings of **Western Copper Mills Ltd.** issues are to be made shortly by **Gairdner & Co.** and a Canada-wide syndicate.

Financing consists of $3 million 6% 20-year first mortgage s.f. bonds priced at par; $2.5 million 6% 20-year s.f. debentures, also at par; and 183,350 common shares at $10.

The bonds and debentures will carry 25 and 40 warrants per $1,000, respectively, to buy common shares at $10 until Aug. 15, 1962, the price increasing $1 per share for a further five years.

* * *

Preliminary annual report of **Loblaw Groceterias**, published early this week, less than two months after the fiscal year-end, notes that financing is under consideration. Accounts had to be prepared early for the financing, and company made them available to shareholders as soon as they were ready.

* * *

Shareholders of **Toronto & London Investment Co.** have been offered rights to buy one new share at $2.50 for each five shares held; rights expire Sept. 9. Proceeds will be used for investment. There are now 2,800,714 npv shares outstanding, of an authorized 4,179,409.

* * *

Four new U. S.-owned Canadian mutual funds have set up a joint committee as a central public information source. Sponsoring companies are **Canada General Fund, Keystone Fund of Canada, New York Capital Fund of Canada,** and **Scudder Fund of Canada.**

* * *

Shareholders of **Inland Cement Co.** have approved doubling the authorized number of par $10 participating preferred shares to 2.4 million. This makes available the 291,250 preferred shares needed for Inland's purchase of **Saskatchewan Cement Corp.** of Regina, and will provide scope for further financing.

* * *

Hudson's Bay Oil & Gas Co. has been granted supplementary letters patent increasing capitalization to 25 million shares, par $2.50 (previously: four million $10 par shares authorized, two million outstanding). Company is 75% owned by **Continental Oil Co.** and 25% by **Hudson's Bay Co.**, whose shareholders are to be offered 1,750,000 additional Oil & Gas shares in proportion to their holdings.

* * *

New common stock financing by **Fleet Manufacturing Co.**, to net $400,000, is slated for the near future, according to street sources.

Net loss was $91,225 in year ended last Sept. 30, but company is said to have been operating profitably since January.

* * *

Establishment of a new company, **Nova Scotia Pulp Ltd.**, with the provincial government's blessing, has revived speculation that a chemical industry will be established in Nova Scotia.

Canadian Industries Ltd. is known to be investigating the possible establishment of a chlorine-caustic soda plant in Cumberland county, if a pulp mill is actually built in Nova Scotia.

* * *

Approximately 60% of the portfolio of **British Empire Investment Trust**, which had a market value of £2,870,676 ($7,655,000) at April 30, is invested in Canada, and 9% in the U. S. The U. K. company is the parent of **Betrust Investment Corp.**, Toronto.

Another $250 million **American Telephone & Telegraph** bond issue — the second this year — is being offered for competitive bidding. To be dated Nov. 1, 1957, bonds will mature in 1983. A similar offering was sold in March.

* * *

Net asset value of **Lehman Corp.**, one of the oldest U. S. investment trusts, rose to a new high of $247.4 million or $26.74 per share at June 30, from $25.26 a share six months earlier. Assets were invested 94.3% in common stocks at mid-year, with another 4.2% in U. S. Government obligations.

A Report on Canadian Husky Oil

A new report on Canadian Husky Oil Limited has been prepared, which reviews the Company's growth and financial position.

Exploration and development operations of the Company for 1957 are discussed. Two maps are included showing the areas in Western Canada's oil and gas fields in which the Company has interests.

A copy of this new report will be forwarded on request.

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A TIMELY STUDY

Quebec Natural Gas Corporation

An interesting and comprehensive review of the potentialities of Quebec Natural Gas Corporation, which will shortly be distributing natural gas on the Island of Montreal, has been prepared by our Research Department and is available on request.

Natural gas as a competitive fuel . . . the experience of other Canadian companies which have converted to natural gas . . . and statistical highlights of the industry and the Corporation are discussed.

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Sales and Profit Gains . . .

	Fiscal Year End	Sales Latest Yr. ($ Millions)	Sales Prev. Yr. ($ Millions)	Change %	Net Profit Latest Yr. ($ 000)	Net Profit Prev. Yr. ($ 000)	Change %
Canada Safeway	Dec. 31	188.8	174.1	+ 8.4	4,866	3,483	+39.7
Dominion Stores	Mar. 23	270.5	219.7	+23.1	5,723	4,326	+32.3
Loblaw Groceterias	June 1	285.0	255.7	+11.4	*6,285	5,668	+10.9
Loblaw Inc.	Feb. 23	241.5	211.9	+14.0	3,065	2,752	+11.4

*Net profit $8,015,700 including accounts of Loblaw Inc., consolidated with those of parent this year for first time.

Push Food Chain Shares Higher

	Price Recent $	Price March $	Earnings per Share $	Dividend $	Price/Earnings	Indicated Yield %
Dominion Stores	54½	42	3.55	1.25	15.4	2.29
Loblaw Cos. B	24¾	16½	†2.64	0.40	9.4	1.62
Loblaw Inc.	84	65½	8.66	2.00	9.7	2.38

†Includes accounts of Loblaw Inc., but excludes National Tea earnings except for dividends actually received.

THE FOOD CHAINS By PAUL S. DEACON

Supermarkets Win New Buyers

Stocks Find Favor as Earnings, Sales Show Big Gains

Back in March, investors were asking questions about the food chain stocks (**FP** March 16). Why had they been so lackadaisical in their market performance in the face of good earnings results?

Since then, however, their record has been spectacular enough. Compared with a 5% increase in the Dominion Bureau of Statistics' index of 95 stocks, here is the record of the three major chains whose common shares are traded on Canadian exchanges:

Dominion Stores, up 30%
Loblaw Companies B, up 50%
Loblaw Inc., up 28%.

The accompanying tables provide some clues to renewed investor enthusiasm in this group of stocks. In the past two or three months these three companies have published their results for the previous year, and all show big gains in sales and in earnings.

Just this week, Canadian Loblaw mailed its latest results to shareholders. In 52 weeks it exceeded by 11% what it had accomplished in 53 weeks the previous year (a record year at the time).

If the effect of the extra week is eliminated, the gain in sales was 13.6% and the gain in earnings 13%.

The company reported earnings for the first time on a basis which consolidates the accounts of Loblaw Inc., its 55%-owned U.S. subsidiary. This boosted earnings even further, to $8 million vs. $5.7 million in 1955-56 on the unconsolidated basis.

The consolidated figure gives investors a better picture of the earning power behind the stock.

If the Loblaw interest in the net earnings of **National Tea Co.,** Chicago (33% owned) is included, earnings applicable to Loblaw Cos.' A and B shares are approximately $3.12 a share, President George Metcalf told shareholders. National Tea accounts are reflected in the Loblaw statement at the moment only to the extent of dividends received.

Bigger Sales In More Stores

On the evidence at hand, the growing business of Loblaw's and the other food chains shows no signs of slowing up.

Canada Safeway, which publishes sales results every four weeks, showed a gain of more than 14% in the first 28 weeks of its current year, compared to the same period a year ago. Sales increase last year: 8%.

Part of this reflects opening of new stores. At the end of 1956, it had only five more stores operating than a year earlier. Since then it has increased the number by 13.

Dominion had 31 new retail units under construction at the end of March, all to open this year. Commitments from financial institutions for purchase of store properties at that time amounted to $10 million.

Loblaw's report this week states that it is considering further financing. This undoubtedly will help the company pay for its continuing expansion.

One factor that has made investors hesitate about food chain stocks for the future has been the danger of declining profit margins. In the U.S., competition has forced earnings to lag behind sales increases.

There has been some evidence of this in Canada too, but operators have been able to overcome it so far.

In its 1949-50 fiscal year, for instance, Dominion Stores earned 2.3 cents per dollar of sales. Five years later the profit per sales dollar was only 1.71c.

Lately, however, its margin has been boosted again, reaching 2.12c in the latest year.

Canadian Loblaw achieved a return on sales of 2.2% last year compared with 2.16% in 1949-50 and 2.18% in 1954-55. U.S. Loblaw's was 1.26% in 1956-57 against 1.24% two years earlier and 1.63% in 1949-50.

Canada Safeway earned 2.38c per dollar of sales in 1956 compared with 1.99c in 1954 and 2.28c in 1949.

This kind of margin doesn't leave much leeway for the operators to come and go on. But despite rising costs, they have found ways to keep earnings growing fairly consistently with sales.

Crown Zellerbach Canada First Half Net Drops 27%

Crown Zellerbach Canada Ltd., Vancouver, net profit for the six months ended June 30 dropped 27% to $3.5 million from $4.8 million in comparable period last year.

Higher manufacturing costs and the premium on the Canadian dollar more than offset the $4 per ton increase for newsprint which company established in March, reports President P. T. Sinclair.

The exchange premium amounted to $815,000. Sales of other paper and converted products rose, but lower selling prices and higher costs cut profits.

Combined pulp paper and lumber products sales rose by 10% to $39.6 million.

The dollar sales volume of lumber and plywood dropped because of the substantial price reductions. There was also a decline in income from log sales due to the depressed log market.

There was some recovery in the lumber and plywood markets in May and June. Should this trend continue it will result in higher earnings for the second half, company says.

Start-up of the bleach plant at Elk Falls, Vancouver Island, pulp and paper mill has made it possible to use bleached kraft in newsprint production.

This has already aided in boosting the daily production of the No. 1 newsprint machine by about 5%.

Installation of the No. 2 machine is proceeding satisfactorily and should be in production by year-end. It is designed to produce either kraft paper grades or newsprint.

Profits Here?

A regular listing of latest studies by investment firms.

BRITISH COLUMBIA POWER CORP. and CANADIAN DELHI OIL LTD. — Osler, Hammond & Nanton Ltd., Portage Ave. and Main St., Winnipeg.

FISCHER & PORTER (CANADA) LTD. — Deacon Findley Coyne Ltd., 197 Bay St., Toronto.

NORTHERN TELEPHONE CO.—Burns Bros. & Co., 44 King St. W., Toronto.

CANADIAN PACIFIC RAILWAY CO. — Ross, Knowles & Co., 25 Adelaide St. W., Toronto.

Quebec Power Net Rises 14%

MONTREAL (Staff)—Net profit of **Quebec Power Co.,** for the six months ended June 30, 1957 was $661,378 up 14.4% from $577,909 in the corresponding period last year.

Earnings were 97c per share on 679,999 common shares outstanding as at June 30 (86c per share on 669,464 shares outstanding a year earlier).

Revenue from power sales was up 14.8%, largely to sales to **Ste. Anne Paper Co.,** which became a customer in mid-1956. Revenue from gas sales declined.

Total operating expenses—including depreciation — increased by 14%. Most of the increase was due to purchase of additional power to meet new sales commitments.

	1957 $	1956 $
Power revenue	6,492,502	5,654,263
Add: Gas revenue ...	255,737	260,315
Less: Maintenance, general exps.	2,257,310	2,218,232
Power purchased ..	2,450,806	1,844,144
Tax. (oth. than inc.)	183,272	168,956
Depreciation	540,000	513,000
Int. on funded debt	234,560	237,427
Income taxes	531,971	469,388
Net profit	661,378	577,909

Dollar Discount, Rising Costs Cut Abitibi Earnings by 18%

Abitibi Power & Paper Co., Toronto, consolidated net profit for the half year ended June 30 dropped to $6.6 million, 17.6% lower than in like period last year.

Earnings per share slipped to $1.51 from $1.85. Net sales were 1.4% higher.

The decline in earnings was largely due to the very unfavorable exchange rate on U. S. funds and to production costs which continue to rise, reports President D. W. Ambridge.

Average discount on U. S. funds was 4.27% compared with 0.49% in same period last year.

On March 1 price of newsprint was increased by 3%, but this is inadequate to offset higher production and delivery costs, company says.

Although Abitibi is marketing large quantities of all its products, it did not use its full newsprint capacity in first half and seems unlikely that full newsprint capacity will be required for some months. There is now an adequate newsprint supply for all publishers who are able to pay for their supplies in dollars.

The fine paper operations of **Provincial Paper** continue to show satisfactory earnings and volume which reflects operation of the new paper machine which began production last year.

The new particle board, "Platewood," being manufactured at Sturgeon Falls is meeting a good demand, especially by the furniture industry.

Construction of the new paper machine at Fort William is proceeding satisfactorily.

The new board mill of **Abitibi Corp.** at Alpena, Mich., is expected to begin production in the fourth quarter. The pre-production expenses, which will be incurred in the second half, are being charged as incurred against consolidated earnings.

Here is Abitibi's statement:

6 Mos. Ended June 30:	1957 $	1956 $
Net sales	66,462,735	65,527,290
Less: Operating costs	48,441,472	45,180,821
Add: Int. & other inc.	514,425	473,528
Less: Depreciation ...	3,609,524	3,758,660
Depletion	111,000	114,000
Employees' retire. .	558,157	533,357
Interest	813,751	527,400
Discount & expense on funded debt ...	20,021	32,896
Income taxes	6,840,000	7,863,000
Net profit	6,583,235	7,990,684
Net per common share	1.51	1.85

CIL Earnings Increase 5% In First Half

MONTREAL (Staff)—**Canadian Industries Ltd.** consolidated net income for the six months ended June 30, 1957 was $5,073,000 or 58c per common share, up 5.2% from $4,820,000 or 55c per common share in the corresponding period last year.

Consolidated sales at $75.2 million were 11% greater than $67.7 million in the first half of 1956. Despite increasing competition, company experienced a gain in sales of most of its products.

Sales of polythene and "Terylene" polyester fibre were higher in both the domestic and export markets.

Company completed and put into production the extension to the York Paint Works in Toronto during the second quarter of the year.

The hydrogen peroxide plant at Hamilton is expected to be completed on schedule before the end of 1957.

Construction of the sulphuric acid plants at Copper Cliff and Beloeil is reported as progressing satisfactorily and production is expected to start early in 1958.

Engineering and design studies to double the capacity of the polythene plant at Edmonton are now being undertaken.

6 Mos. Ended June 30:	1957 $	1956 $
Sales to customers ..	75,200,000	67,700,000
Inc. from operations .	8,811,000	7,947,000
Add: Inc. from invests.	20,000	119,000
Less: Int. on bk. loan, deb. int. & disc. ..	366,000	481,000
Prov. for fed. & prov. income taxes	2,966,000	2,565,000
Min. sh'holders' int. in net inc. of sub. cos.	226,000	200,000
Net income	5,073,000	4,820,000
Earns. per com. share	0.58	0.55

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Dividend Changes

WATERLOO TRUST & SAVINGS — New common, 32½c, payable Oct. 1, to holders of record Sept. 30. First quarterly dividend. Previously paid semi-annually. Total paid or payable to date in 1957, $1.52½; total paid to same date in 1956, $1.20; total paid in 1956, $1.20. Recent price: $31 bid; $32 asked.

BRITISH COLUMBIA PACKERS—Class B, $1, payable Sept. 16, to holders of record Aug. 30; ex-dividend Aug. 28. Total payable to date in 1957, $1; total paid to same date in 1956, $1.25; total paid in 1956, $1.25. Recent price: $14¾.

NATIONAL DRUG & CHEMICAL CO. OF CANADA — Common, 20c payable Sept. 3, to holders of record Aug. 2; ex-dividend July 31. Total paid or payable to date in 1957, 50c; total paid to same date in 1956, 45c plus 10c; total paid in 1956, 60c plus 10c. Recent price: $11¾.

CANADIAN POWER & PAPER SECURITIES —Common, 20c, payable Sept. 6, to holders of record Aug. 23; ex-dividend Aug. 21. Initial dividend. Recent price: $6¾.

KELLY, DOUGLAS & CO.—Class A participating, 6¼c payable Aug. 31, to holders of record Aug. 9. Initial dividend.

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ANNOUNCEMENT

New Directors Montreal Trust Company

FRANK M. McMAHON RONALD MARTLAND, Q.C.

At a meeting of the directors of Montreal Trust Company held on July 30, 1957, Frank M. McMahon, of Calgary, and Ronald Martland, Q.C., of Edmonton, were elected directors of the Company.

Mr. McMahon is Chairman of the Board of Pacific Petroleums Ltd.; President of Westcoast Transmission Company Limited, Alberta Phoenix Tube & Pipe Limited and Peace River Natural Gas Co. Ltd. He is also a Director of The Royal Bank of Canada, Northwest Nitro-Chemicals Ltd., Alberta Distillers Limited and Canadian Collieries Resources Limited.

Mr. Martland is a partner in the law firm of Milner, Steer, Dyde, Martland & Layton; a Bencher of The Law Society of Alberta; a past President of the Edmonton Bar Association; a Member of the Canadian Bar Association and a Director of Northwestern Utilities Limited, Canadian Utilities Limited and Northern Broadcasting Corporation Limited.

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Threat To Oil Exports

Political spokesmen for oil-producing American states are demanding that the U.S. Government curtail or ban completely the importation of crude petroleum. The domestic petroleum industry, says an Oklahoma Congressman, is in "a dangerous and appalling situation." A Texas Senator declares that even a slight delay in imposing restrictions will mean "ruin for independent producers."

Barron's Weekly offers powerful objections to their argument. An import ban would hurt the American public by boosting prices. It would hurt the oil companies, large and small, which are now dependent to some degree on imported crude. It would be a poor way to cultivate friendship with Canada and Venezuela, or more distant lands like Saudi Arabia, Indonesia and Iran, "all of which Washington has been at great pains (and no small expense) to woo."

The damage to Canada would be severe. This country's exports of crude petroleum to the U.S. have zoomed in recent years from $6 million in 1954, to $36 million in 1955, to $103 million in 1956.

This is business Canada can't afford to lose. Without it, our unfavorable balance of trade with the U.S. (already much too big for the country's economic health) would increase by 8 to 10%.

Another point is relevant. It's because of a ruling by the Office of Defense Mobilization that President Eisenhower has power, without asking Congress to pass or amend a law, to cut down oil imports. ODM is entitled to rule on the question whether American security is threatened by dependence on foreign supplies of any kind. Recently it ruled that purchases of foreign oil had risen above the safety margin. Mr. Eisenhower has a free hand to do what he thinks fit.

The calculations on which the ODM decision was based are obscure and mysterious; but they can't reasonably be applied to Canada in any case. Canada will always be on the same side of any war as the U.S.; and Canadian oil supplies will be quite as safe and certain as the American domestic product.

Farming in Perspective

There is no doubt that the problems of Canada's farm economy are real, but they must be kept in perspective. Farm spokesmen do their cause more harm than good, when they complain that farm prosperity has not kept pace with the development of the economy at large; that farm incomes are a diminishing share of the national income.

In view of developments outside the farm sector in recent years, it would be surprising indeed if farming were growing as fast as other industry. Canada's postwar growth has resulted mainly from the use of new non-agricultural resources. This has expanded the home market for farm products, and given greater income stability to areas formerly entirely dependent on farming. But the fact remains that population and resources have been moving out of agriculture, and farm incomes are bound to reflect this change.

The latest census (1956) reveals that there are now 2,631,587 Canadians living on farms. In 1951 there were 2,827,732. This decline took place while the general population grew by 14%.

The census also shows that there are now only 575,015 farms in Canada. In 1951 there were 623,091. In other words, while industrial plants and commercial undertakings in Canada have increased the number of farms has been sharply reduced.

In these circumstances, if total farm incomes were rising at the same rate as total national income from all sources, it would mean that income per farm and income per head of farming population were increasing at a much faster than average rate.

In some countries, governments have fallen into the trap of assuring farm blocs a constant income—or at least assuring them that when income moves away from the fixed level, steps will be taken to adjust the situation.

This has the effect of discouraging the movement of resources out of agriculture and into industry (in spite of demands for greater industrialization) and maintains inefficient farms in operation at the expense of the consumer. Part of Canada's marketing problem results from efforts by governments to shield farmers from the effects of change.

The notion that farmers—regardless of the number of persons or farms involved—should be entitled to a constant proportion of the national income is totally fallacious and nonsensical.

Out of Their Reach

Forty per cent of the new residential construction in Metropolitan Toronto in the last four years has been in apartment suites. Before the war in the same area probably nine people out of every 10 lived in individual family homes.

The trend toward apartment living started just before the first world war and grew slowly but steadily until about 10 years ago.

Not all people wanted gardens, or grass to cut and snow to shovel. For many of those without children, or whose children had grown up, apartment living had special advantages.

Undoubtedly one of the major reasons for the big apartment boom is the high cost of individual housing, particularly the initial cost. Not too many years back a young couple with a growing family could buy a modest house for a few hundred dollars down. They can't do that now and if it is an older house they want, they may be asked from $5,000 to $10,000 as a down payment. To move into an apartment, on the other hand, the only capital necessary is the first month's rent.

A Good Example

American firms with branches in Canada might take a tip from Unilever, a very successful international business. Unilever finds it prudent and profitable to employ native sons, in top managerial and technical jobs, wherever it establishes itself overseas.

F. J. Pedler tells the story in the current issue of "Progress", a Unilever publication. Writing mainly about Asia and Africa, he introduces a word unknown to the dictionary but familiar in his company. "-Ization," short for Africanization, etc. This process goes on steadily in Unilever branches.

In Trinidad, Nigeria, Turkey, India, Pakistan, Ceylon, Malaya, Thailand, Indonesia and the Philippines, in January, 1957, Unilever had on its management staff 440 "local" as against 197 "expatriate" employees. The disparity in favor of local people was greatest, 251 to 33, in India.

Mr. Pedler says that "-Ization" is good business, provided that the staff are chosen not on a racial basis but for competence. It has gone so far in Unilever that it's now a two-way affair. Asian and African managerial men have become directors and taken part in making international decisions.

If this can happen in Nigeria, surely it can happen in Canada. With some distinguished exceptions, U.S. companies that have branches here employ only or mainly Americans in the top executive or technical jobs they have to offer. They turn their staffs into little islands of American expertise.

They will find it to their advantage, in the long or short run, to follow Unilever's example.

Economics and Castor Oil

Nikita Khrushchev has said that "The capitalist is interested only in profits. If the whole world would eat castor oil and if castor oil would give him greater profits, he would not be concerned with how castor oil affects the human organism. He would feed everybody castor oil. This would give him great profits and he would be satisfied. This is the essence of capitalist production."

Capitalists (unlike political dictators) provide castor oil only for those who want it; they do not pour castor oil down unwilling throats.

The great virtue of capitalism, not its vice, is the fact that it seeks profits without trying to force other people to do what someone else thinks is good for them. In practice, this works out pretty well. Wherever capitalism has a chance to operate, food, clothing and a host of other desirable goods are provided on a scale unachieved by any economy which has abandoned the profit incentive . . . including Russia.

Oh no, Not That!

There are excellent reasons for viewing with alarm the plans of Italian dress designers as revealed in the fashion shows in Rome last month.

Their dastardly scheme is to reveal the female knee.

A knee (male or female) is a bony, awkward piece of machinery suitable for viewing only when surrounded by adequate portions of the mainder of the leg, as in bathing suits or shorts.

Second, the knee-length dress has unfortunate connections with the year 1929, and that year, we need hardly remind our readers, has unfortunate connections with the Gr--t Cr-sh. Business psychology being what it is, this is no year to make a businessman think he's back in '29.

Third, with every textile industry in the world complaining about markets, this is no time to encourage the woman of fashion to drape herself in three yards of cloth instead of four. That's a 25% cut in potential at one stroke of the pencil.

Fourth, what with H-bombs, inflation and the middle eastern situation, public morale is shaky enough without adding to the strain by forcing women to wear, and men to look at, a uniform they know to be hideous.

It Might be Worse

Weathermen are by no means unanimous that our climate is really getting warmer. Some indeed, predict that a cool cycle is already on the way.

Perhaps it is just as well. The recent experience with balmier weather in eastern and central Canada has not all been favorable.

Take the fishermen on the Atlantic coast.

Some of them are finding that the cod and other fish they used to get right in their own front yards, have moved further north seeking cooler waters. In their place have come a rapidly increasing number of net-destroying and commercially-worthless half-ton sharks. Until recently a shark anywhere around Prince Edward Island or Nova Scotia was worth an item in the newspaper. Now one fisherman reports an even dozen tangled in his mackerel nets in one morning.

When we think of some of the other things we would get along with a permanent change in climate—more summer heat, more insects and more weeds to mention a few—maybe we should be satisfied with the weather we have.

Recipe for a Market

Take 732,032 boys between the ages of 10 and 11, and another 919,952 between five and nine.

Add 3,187,099 passenger cars, or one for every five Canadians.

Add the five-day-week and high income levels.

The result: the biggest market for fishing-tackle this country ever saw.

To avoid raising a crop of juvenile delinquents, tens of thousands of fathers will have to spend some time having fun with their children.

Fishing is one activity in which a middle-aged father can participate with his boy without having to run about rapidly in the hot sun or otherwise expose his sedentary heart and muscles to undue shocks. Fishing is non-competitive and scoreless and Canada is exceptionally well supplied with fish.

All of this has kept the fish tackle people in a big sweat of activity all summer.

Napier Moore's

Scratch Pad

EDITORS AND LECTURERS on the art of popular writing have always stressed the necessity of writers commencing a piece with an arresting statement. I remember the teacher of a short-story class who delighted in quoting as a classic example, "Hell," said the Duchess, "take your hand off my knee!"

Nevertheless, I got a jolt when I read in the Sunday Express the report of an interview by book reviewer Robert Pitman. The opening paragraph read:

"While Sir Beverley Baxter lay panting on the hearthrug at her feet, Miss Ursula Bloom, the novelist, was telling me the story of her life . . . Miss Bloom was wearing a simple blue woollen dress. Sir Beverley Baxter was wearing nothing but a simple blue leather collar."

As an old friend of Bax I was a bit shaken. Until I came to the second paragraph—"Which is not really so surprising as it may sound, because Sir Beverley Baxter happens to be Miss Bloom's pet dachshund."

* * *

DOWN IN LONDON'S CITY I heard a rumor that the British Government isn't keen on the Massey-Harris-Ferguson bid for Standard Motors. The investment man who repeated it said that if the report was true he couldn't understand it in view of the Government's approval last year of the sale of British-owned Trinidad Oil to the Texas Company.

By the way, the former shareholders of Trinidad Oil, who were tickled to death to sell their holdings at double the market price, aren't so happy now. For T.O. is booming, as are the shares of Trinidad Petroleum Development and Shell Trinidad.

Frederick Ellis, Express financial correspondent writes: "It is clear that when the North Americans come a-bidding for British companies they have the bargain basement approach, and we should never be in a hurry to take the first bid. That goes for Standard Motors — for if Massey-Harris-Ferguson bids 9s. 6d. you can be sure the shares are worth much more."

* * *

BACK IN MARCH, Mayor Leonard Kitz of Halifax, N.S., was reported as saying in a speech that Canada might do better by putting $26 millions into the new West Indian Federation than by putting that amount into the Colombo Plan; that he regarded a trade alliance between the Maritime Provinces and the Caribbean islands as a natural.

Mayor Kitz's remarks got around the Caribbean, and I gather from West Indians who have been in London recently that they aroused considerable interest. For the name of Canada rates highly in the islands.

Knowing something of the West Indies it would be my guess that as the new Federation finds its feet there will be steadily increasing opportunities for Canadian trade and investment—if we go after them. Already the Americans are on the alert, diplomatically and businesswise.

Incidentally, the new Federation is having a spot of capital trouble. Trinidad, chosen as the location, feels that the best site would be that at Chaguaramas occupied by a 99-year-lease U.S. Naval base. The U.S. doesn't want to move. At the Foreign Office the matter has been discussed by representatives of all the Federation countries, the British Colonial Office and the American Ambassador. Jamaica's Chief Minister, Mr. N. Manley, told the press that there are other suitable sites for the naval base, and that if the Americans remained obdurate "we must find means to make them less obdurate."

* * *

A MILE OR TWO AWAY FROM THE ENGLISH COTTAGE wherein this correspondent at present abides, is Northolt Air Station, used by RAF and USAF transport aircraft. On occasion, planes skim over the roof at such low levels that we instinctively duck. The other day, a U. S. transport clipped off the top branch of a tall tree which stands at the edge of our driveway. It was a thin branch which put up no resistance at all. But, fearful of our chimney, and even the possibility of a plane mowing down our cherished rose bushes, I wrote a letter of protest to the air station O.C.

Replying on the O.C.'s behalf, a Squadron Leader said he was distressed by the incident. It appeared that the house is situated in line with one of the station's runways. He explained that while pilots endeavor to climb away as soon as possible after taking off, there is a period after leaving the runway when an aircraft flies almost level to gain speed for its climb. A loaded transport would travel some distance before climbing above 200-300 feet.

The Squadron Leader concluded on a cheery note. He said, "However, an aircraft is safe at this height, as it will have gained sufficient speed to be able to continue climbing even if one engine fails."

Unless, of course, it scrapes a tree top which refuses to bend.

* * *

IN HIS "YOU NEVER HAD IT SO GOOD" speech at Bedford, Prime Minister Harold Macmillan told the story of a young man who sat for his matriculation exam every year for 20 years and failed every time. Nothing daunted, he set up in business as a crammer and advertised: "Coaching for the matric—20 years experience."

"I believe he did very well," said Mr. Macmillan. "Afterwards he set up as a Socialist leader."

Stop Me, If—

Farmer: "Yes, sir, I believe in keeping sensible hours. I go to bed with the chickens and wake up with them."

Hillbilly: "Well, I don't. I like to sleep in my own bed."

Post Scripts

Economic Researcher

Herbert C. Andreae, 37, is the new president of the Security Analysts' Association of Toronto. During his eight years with the Association, he has helped to persuade top-ranking business leaders that its luncheons are a "must" on their list of speaking engagements.

MR. ANDREAE

Educated in Toronto, he served as a pilot in the RCAF from 1940 to 1945, including a stretch in the Far East. Attending the University of Toronto after the war, he graduated as a Bachelor of Arts, then took a Master of Commerce degree in 1949 at the University's Institute of Business Administration. Later, he lectured in corporation finance at the Institute.

From 1949 to 1956, Andreae was with Dominion & Anglo Investment Corp. and Debenture & Securities Corp. of Canada, as secretary and security analyst. Last year, he launched his investment counsel practice, forming Andreae, Cole & Co.

He has been a member of the Security Analysts' Association since 1949 and in 1956 was its vice-president. In 1955, he headed a committee which submitted a brief to the Gordon Commission on behalf of his Association.

Herbert Andreae is vice-chairman of the Toronto chapter of the Canadian Institute of International Affairs, and is a founding partner of Canadian Economic Research Associates, an economic consulting organization.

Mrs. Andreae is the former Ruth Bowman of Toronto. They have two children — Patricia, 13, and Daniel, five. Hobbies include operating a farm at Caledon, Ont., and fishing.

* * *

B.C. Top Merchant

One sunny day earlier this summer a long-handled shovel was plunged into the richest chunk of undeveloped real estate in Vancouver.

Foot planted squarely on the shovel, hands grasping the handle, 32-year-old Charles "Chunky" Woodward threw the rich loam aside and embarked Woodward Stores (1947) Limited on the largest and most ambitious project in its 64 years of expansion.

MR. WOODWARD

For Charles Woodward it was his most important action since he became Canada's youngest merchant prince following the death of his father last year.

The sod-turning ceremony marked the start of a $10-million shopping centre on 31.9 acres purchased from the Canadian Pacific Railway in the heart of upper-middle class south-central Vancouver.

When completed late in 1958 or early 1959, the Oakridge shopping centre will be the most modern in Canada, with a main floor of 300,000 sq. ft., parking for 3,000 autos and space for 30 or 40 "fringe" stores.

It will be the big jewel in the crown of seven Woodward stores in B. C. and Alberta and consolidate its position as Canada's fourth largest department store chain.

More than half a century of shrewd and progressive merchandising plus a well-developed sense of integrity in dealing with its customers has made the name Woodwards a B. C. institution.

In late December the company went for the first time to the public for funds. A new series of $6 million 5% convertible sinking fund debentures went on sale and were snapped up in 60 minutes.

Speed of the sale amazed some, but not veteran west coast brokers who realized that this was merely a manifestation of the confidence which the public has had for decades in the institution known as Woodwards.

The new president is the third generation of his family to attain the presidency. Like others of his family, he knows what it is like to work. His training included jobs as a stockroom helper, Christmas rush clerk in the mad-house toy department, a salesman and then a manager.

Only once did he break off the training. He enrolled in the University of B. C. but in 1943, as an 18-year-old sophomore, he quit and joined the Canadian Army, serving overseas with the 12th Manitoba Dragoons.

On his return, he was later appointed manager of the successful Park Royal shopping centre in West Vancouver in 1950. He was then chosen to open up the firm's big centre in Edmonton and then moved on to New Westminster to open up another equally successful centre.

Charles Woodward, married in 1948, has two sons and two daughters. Like many other B. C. men, his hobbies are hunting and fishing.

* * *

Follows His Father

It was a case of a son following in his father's footsteps, when Frederick Gordon Elves was elected president of the Calgary Stock Exchange. His father Frederick A. Elves held that position, 1934-35.

While his father helped the exchange grow even during the depression years, the new president heads a business enterprise that has kept pace with the city's growth and its accompanying financial stresses.

The exchange started operations in 1914 as a result of the Turner Valley oil discoveries. Except for the period between 1917-1926, it continued trading in lean years and good years.

Today the exchange has 161 stocks listed on its concave shaped board. Last year it recorded 19 new listings, traded the fifth highest number of shares on North American exchanges, and had the highest total dollar volume (fourth highest in its history) since 1952. The exchange owns its own building.

The 39-year-old president's chief aim is to keep the exchange's fine reputation intact. Elves feels that greater emphasis on public relations coupled with increased education on stock trading will help further its growth.

Gordon Elves was born in Vulcan, Alta., in 1917 and moved to Calgary in 1926 where he received his education. He worked for several oil companies in Turner Valley in various capacities including drilling and production operations as well as a security salesman during the royalty interest era.

He owned and operated an automotive supply business in Ontario in 1939 and 1940 after which he became a staff pilot with the British Commonwealth Air Training Scheme.

From 1944-46 he was employed as an airline pilot by the British West Indian Airways in Trinidad on their Caribbean-South American operations. He returned to Calgary and purchased a controlling interest in an air charter and student training school. He was the first man to introduce small aircraft spraying operations for weed control in Alberta.

He has been an officer of several oil companies and since 1948 has been participating in the management of several oil ventures as well as operating an investment business known as F. Gordon Elves Investments Ltd.

He married the former Helen Lyons of Calgary. They have three children, two girls and a boy.

His hobbies include woodworking and fishing.

What Others Are Saying

Editorial of the Week

Greatly To His Credit

Victoria Times

IT IS GREATLY TO MR. DIEFENBAKER'S credit that he has evidently decided not to call a snap autumn election, catch the opposition unprepared and profit by the electoral memories of June 10.

Since the Queen will open Parliament in mid-October and the Government will introduce legislation of utmost importance (including higher old age pensions and lower income taxes) the House of Commons presumably will have business enough to occupy it until the eve of Christmas.

Having fulfilled his immediate election promises, Mr. Diefenbaker will be entitled to go to the country at any moment of his choice. He is not compelled to hold a regular parliamentary session early in the year and may well prefer to seek a full public mandate before he goes on to complete his program.

Clearly the present Parliament will not live long in stalemate. The Government cannot act with strength or assurance so long as it lacks a majority. An election early in the new year or by spring at latest therefore seems probable.

Other People's Views

IT'S ALL VERY NICE to have these clubs help immigrants get settled here, but, declares the **St. Catharines Standard**, "the best thing for an immigrant to do is to get used to Canada and Canadians."

* * *

OUR BLACK RECORD of traffic deaths will become even worse, declares the **Simcoe (Ont.) Reformer**, "unless more intensive police surveillance and more stringent penalties for traffic offenders become the rule."

* * *

NO WONDER TAXES are so high, says the **Owen Sound Sun-Times** which points out that, "in 1950 wages and salaries paid out by the Federal Government totaled $330 million. In 1956 $680 million . . . Provincial and municipal wage and salary outlays more than doubled" during the same period.

* * *

MR. PEARSON'S BLUNT criticism of United States trade policies gets warm approval from the **Montreal Star**. "Washington might begin to ask itself if its way of reducing the U.S. wheat surplus is worth a disgruntled northern neighbor, or whether the tariff lobbies' unceasing watch over their individual commercial interests weighs in the balance against effective continental defence."

* * *

NOVA SCOTIA IS GETTING a $40 million pulp mill, and the provincial government has signed a fifty-year agreement with the newly formed company says the **Fredericton Gleaner**. It is generally agreed that the new firm is closely associated with a Swedish business group.

Here we have another instance of the great interest foreign investors are showing in Canada. In this case, it is gratifying to note, a Maritime Provinces site has been chosen by the investors.

* * *

CANADIANS WILL APPLAUD the formation of a special committee of leading private citizens of both Canada and the United States to study, chiefly, the differences between our two countries says the **Vancouver Sun**. It will provide one more pressure point to stir the bland American giant into realizing that all is not necessarily rosy along his northern frontier.

The personnel of the committee adds to the hopes Canadians must hold out for it. It is made up of industrialists.

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Debate on Shakespeare Has Everything

Murder, Sex, Forgery and Politics Mixed Up in This Ancient Argument

By J. B. McGEACHY

"And who do YOU think wrote this play?" a friend asked after we had seen the current and brilliant production of Hamlet at the Stratford Festival.

On giving my vote for Wm. Shakespeare, I reflected that I wasn't up on the new twists in the argument and couldn't offer a good defense of "the Stratford man," as his detractors call him, against the latest claimants.

The question of course is whether Wm. Shakespeare of Stratford, England, was the greatest poetical and dramatic genius on record, or an ignorant third-rate ham actor and theatrical bum with a gift for imposture and a sharp eye for a good racket.

After a period of total immersion in the subject, I can recommend the Shakespeare mystery as the best literary detective story around. It has everything: sex of all kinds in abundance, murder, treason, espionage, ciphers, cryptograms and codes, forgery, wife-desertion, high-born lords and low-born peasants, along with learned debate on how much or how little Greek, law, navigation, love, psychology, politics, Italianate manners and so on was known to the contestants.

I am now less sure of Shakespeare than I used to be, more impressed with the argument that he couldn't have written either Hamlet or Love's Labor's Lost. But I don't see any convincing answer to the question: If not William, who?

Francis Bacon, so far as I know, was the first and only nominee when the battle began more than a hundred years ago. Today the field is open. Sundry belted earls have been proposed; and one writer suggests that Queen Elizabeth I herself might yet be in the race. The most promising of the new contenders are undoubtedly Edward de Vere, 17th Earl of Oxford, and Christopher Marlow. Bacon appears to be running well behind both; but to believe completely in either is more than I can manage.

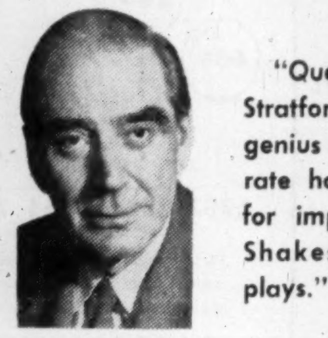
Was He Educated?

Origin of the whole uproar, still going on in books and journals, is a widely held belief that Shakespeare (or Shaksper) of Stratford hadn't enough education to write his supposed works. His father and mother could neither read nor write; there's no specific evidence that their son ever went to school anywhere.

Probably he did attend Stratford Grammar School but the learned men say it wasn't likely to be any great shakes around the year 1570 and no doubt had its few books chained down so that they couldn't be borrowed.

Later William worked in his father's butcher shop — pere Shakespeare also dealt in grain and wool and attained moderate prosperity. William was married young, with some evidence of "anti-nup" as one writer coyly puts it, and then went off to London where he is first found holding horses' heads at theatre doors. Later he had a minor theatrical job as servitor or call-boy. Some deny that he ever had an acting part; others allow that he got as far as Hamlet's father's ghost, in which case he was no Laurence Olivier.

Old-time Baconians, who assaulted their opponents with such terms as crass ignoramus and unscrupulous forger, denied that Shakespeare ever wrote a play or any part of one, but not that he made some money from the theatre. Yet when he retired to Stratford, he showed no further interest in drama or literature.



"Question is whether 'the Stratford Man' was a mighty genius or an ignorant third-rate ham actor with a gift for imposture. I still think Shakespeare wrote the plays."

J. B. McGEACHY

When he died, he had no books to bequeath (though his will mentions many kinds of personal belongings and whatever books he had must have been valuable) nor had he any theatrical rights to leave to his wife, along with his second-best bed, though common law copyright existed in Elizabeth's time.

Still more remarkable, nobody spoke a eulogy, proposed a memorial or particularly noted his death at the time. It was years later that British Stratfordians decided he must have been a great man and got their Shakespeare industry started.

The right answer to all this is of course: What of it? Other great writers had a poor start (e.g. Dickens in his blacking factory), deserted their wives, got into financial disputes (as Shakespeare did) and died in no blaze of glory.

But Shakespeare, the other side says, was not just "a" poet or "a" dramatist; he was the best ever, and his writing showed not only superb art but wonderful knowledge of the human mind, the ways of the world, foreign parts, court manners, law, history and what not.

Where, they demand, did the untutored bumpkin from Stratford pick all this up? It's provable that he didn't go to a university, or the inns of court, wasn't known as a traveller, didn't frequent the royal court and wasn't even, while he lived, personally acclaimed as a literary genius. How could he be the immortal bard of Avon?

Well, I suppose most of us will continue to believe that he did write the plays (or some of them in whole or part), incredible though it may appear to some people. For one thing, it's pleasant to believe in such marvels. For another, none of the suggested frauds can really be swallowed; but they all make good stories.

The Marlowe Story

To begin with the newest and most marvellous (if true), it's necessary to note that Christopher Marlowe was born in 1564 (the same year as Shakespeare), had a brilliant career at school and university, then settled in London and wrote such extraordinary plays as Tamburlaine.

But he was also a rakehell, tosspot and disturbing influence on a scale that startled even the Elizabethans. That generation of British lived in an emotional jungle so hot and entangled that we can hardly imagine how they lived at all. But Christopher Marlow was just too incandescent. Among other things, he preached atheism and mocked the church (offences still punishable by burning), announced his intention of producing counterfeit coins, drank too much, engaged in spying in Europe, and was probably bisexual.

It has been believed for 350 years, it is in all the reference books, that Marlowe was stabbed and killed in a tavern brawl near London in 1593 when he was 29. But Mr. Calvin Hoffman tells a different story, with great ingenuity, in a book called "The Murder of the Man Who Was Shakespeare." It wasn't Marlowe who was killed in the tavern, he says; it was a person unknown who was hastily buried as Marlowe, the poet taking part in the plot.

Shortly before the brawl, he had been arrested on capital offenses. He had friends at court and was let out on bail; but he was certainly in danger of his life. Accordingly he and Thomas Walsingham, his powerful protector and lover, hatched a little conspiracy. Two hired rapscallions met and put to death a third man in an obscure pub, believing the victim to be Marlowe.

The dramatist then skipped to Europe and lived there unidentified. But until he died (date unknown) he sent home plays and poems which appeared in London under the name of Shakespeare, nothing loath to accept a fee for the imposture.

Mr. Hoffman sustains this extraordinary theory by noting, for one thing, that Shakespeare's first published work did not appear until after Marlowe was supposedly dead and buried. Marlowe wrote it, says Hoffman; in fact he wrote all "the works of Shakespeare" — though in some plays the collaboration of other hands is conceded.

The 1593 Inquest

Evidence offered to support this new heresy is certainly remarkable. Mr. Hoffman (who spent 19 years on the research job) dug up records of the coroner's inquiry into the death in the tavern. It was a very hurried and unsatisfactory affair, he shows; and it looks quite tenable that the coroner was Walsingham's stooge.

A small but fascinating item in the proof is from "As You Like It." In this play there's a minor character called William (one of Shakespeare's, or Marlowe's, very few Williams), an ignorant rustic. The witty Touchstone throws this scornful line at him: "All your writers do consent that ipse is he; now you are not ipse for I am he."

This, says Hoffman, is Marlowe tipping off his friends in the audience that he's the author of the play, and not Shakespeare as advertised. In the same play there's an unnecessary character called Martext; which, according to Hoffman, is short for "text by Marlowe." There are several other even more ingenious but more complicated clues. Marlowe's friends, says our author, spotted them in the script and delayed production of the play because they thought it too risky.

But the most persuasive evidence for Marlowe, I think, relates to style. Some years ago, it seems, a learned European attempted to apply measuring tests to the works of numerous great writers, calculating length of words used, length of sentences, discovering patterns that could be described arithmetically. By these tests all the styles were markedly different except that Shakespeare's and Marlowe's couldn't be told apart.

Then there's an extraordinary number of Marlovian echoes in the Stratford man's work. Take, for instance, this from Marlowe's Dr. Faustus: "Was this the face that launched a thousand ships?" and compare it with this from Troilus and Cressida: "She is a pearl whose price hath launched above a thousand ships."

There are hundreds of such parallels; and the argument is that the very great poet who "wrote Shakespeare" might be "influenced" by another but wouldn't continue through life quoting or pinching his lines and thoughts. Yet he could have a trick of quoting or echoing himself.

So much for Christopher Marlowe. Are you convinced? Neither am I. The story is just too far-fetched for belief.

The 17th Earl

Oddly enough, in another book just read or rather skimmed (it has 1,279 pages) the Touchstone line, "you are not ipse for I am he," is also quoted as evidence. But this time it's not Marlowe exiled in Europe but Edward de Vere, 17th Earl of Oxford, who's said to be notifying the people out in front that he is the true author.

Oxford's claim is expounded with infinite detail by Dorothy and Charlton Ogburn in a work called "This Star of England." Their story is wildly different from that told about Marlowe. The two have no link of any kind. They agree only in banishing poor Shakespeare to outer darkness as a low-born ignorant crook.

The 17th earl was of course very nobly born. He showed immense talent from his early years, did well at Oxford and Cambridge, travelled and then began to write plays for the entertainment of the court. But he was born in 1550 or 14 years before Shaksper, as the Ogburns consistently call him. He had put on about half the "works of Shakespeare" by the time the youth from Stratford arrived in the capital. He had done so privately and anonymously; and there were no copies of his dramas available to the public.

But it happened that in 1593 he decided to adopt a pseudonym; and he chose, of all names, William Shakespeare. This was pure coincidence; the noble lord had no idea of the existence of the rustic Shaksper then holding horses' heads. But he heard of him soon. Shaksper took to selling pirated copies of the plays as his own work, obtaining the texts by having actor-confederates memorize parts. This annoyed the earl but apparently he didn't do anything about it except insert sly clues about the true state of affairs.

An extraordinary story! Was Oxford too disdainful of fame to claim his work? This would appear to be carrying aristocratic pride too far; but it is not the explanation given in "This Star of England." Briefly the authors say that Oxford's plays depicted real characters; Queen Gertrude in Hamlet, for instance, is actually Queen Elizabeth with whom the earl was in love. Court intrigues and rivalries forced him to keep his anonymity, or what was left of it.

Not much has been said recently about Bacon as a candidate. His motive for staying out of the picture and letting William take the credit would be roughly the same as Oxford's; but it has always seemed totally inconceivable to me that Lord Verulam, the dry philosopher and cunning politician, could have written anything that's attributed to Shakespeare. Oxford and Marlowe are to my mind much more attractive runners.

However, anyone who wants to learn how the argument was conducted 40 or 50 years ago, when Bacon was at the centre of it, may read "Is There a Shakespeare Problem?" by Sir George Greenwood and "The Baconian Heresy" by J. M. Robertson.

A work called "Secret and Urgent" by Fletcher Pratt, an account of codes and ciphers, has fascinating pages about the efforts made to prove Bacon's authorship by finding cryptic messages in the plays. A Minnesota politician named Ignatius T. T. Donnelly must have been one of the oddest players of this strange game.

He tried to find a numerical code that would show up Bacon's name; but in the end, it seems, he was really using a system by which, if you liked, you could arrive at Captain Cook as the right answer. Find the letters c-o-o-k occurring in the text of Hamlet at intervals of 6-3-7 other letters; and then assume this is the numerical arrangement you're looking for. That way madness lies.

Who did write Shakespeare then? I still say Shakespeare. If he had been the ignorant fellow, knave or impostor described by the Baconians and their successors, surely he would have been instantly shown up and discredited. And what were Ben Jonson and other friends of Shakespeare up to when they got out the First Folio in 1623, seven years after his death, with encomiums to the prince of poets? Were they all in a conspiracy too? The mind boggles.

Does it matter who wrote the plays? Well, I find the question an entertaining pastime on an easy-going summer day; but I can see that too much devotion to it might at some point begin to soften the brain.

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Shareholders of the Bank of Montreal and all other holders of the Bank's Rights should exercise them immediately. After August 9th they are valueless.

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Now is the time to check your first-aid cabinet . . . for more accidents occur in the summer than in any other season of the year.

In fact, almost one third of all accidental deaths occur during the summer months . . . to say nothing of the almost endless number of burns, cuts, bruises and other injuries associated with outdoor activities.

Regardless of how well equipped your first-aid cabinet is, it will not do you much good unless you really know how to give first-aid treatment properly.

For example, it is important to know *what to do and what not to do* in situations ranging from minor scratches or cuts to more serious injuries such as broken bones.

To treat minor cuts: most cuts heal quickly if cared for promptly, but can become serious if infection develops. The first and most important thing to do is to wash the cut under warm running water. Then apply a mild antiseptic and sterile compress to the injuries.

If iodine is used, remember that it becomes stronger with age and old solutions should not be applied.

To treat more serious injuries: falls cause many serious injuries, especially among young children and people age 65 and over. If you suspect a fall has caused a broken bone, do not move the victim unless absolutely necessary. Keep the patient as warm and comfortable as possible and get medical care promptly.

If an accident occurs and you cannot determine its extent or seriousness, call a doctor. Describe the injury, tell him where the victim is, what you have done and the victim's apparent condition.

With your description, the doctor can offer suggestions, decide how urgently he is needed and foresee what equipment he should bring.

To help you give the right care at the right time, Metropolitan offers its new first-aid chart. It tells what to do for many common emergencies—burns, cuts, fainting, poisoning and others. *It also features, with illustrations, the new method of life-saving to apply when someone is nearly drowned.*

This handy first-aid chart may help you keep a minor injury from becoming serious — perhaps even save a life. For your free copy, just clip and mail the coupon below.

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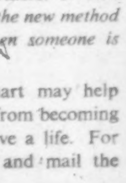

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Our U.S. Trade: What's the Next Move by Tories?

A thorough re-examination of Canada's trade policies is one of the commitments undertaken by the new Conservative Government.

It could affect Canadian business profoundly.

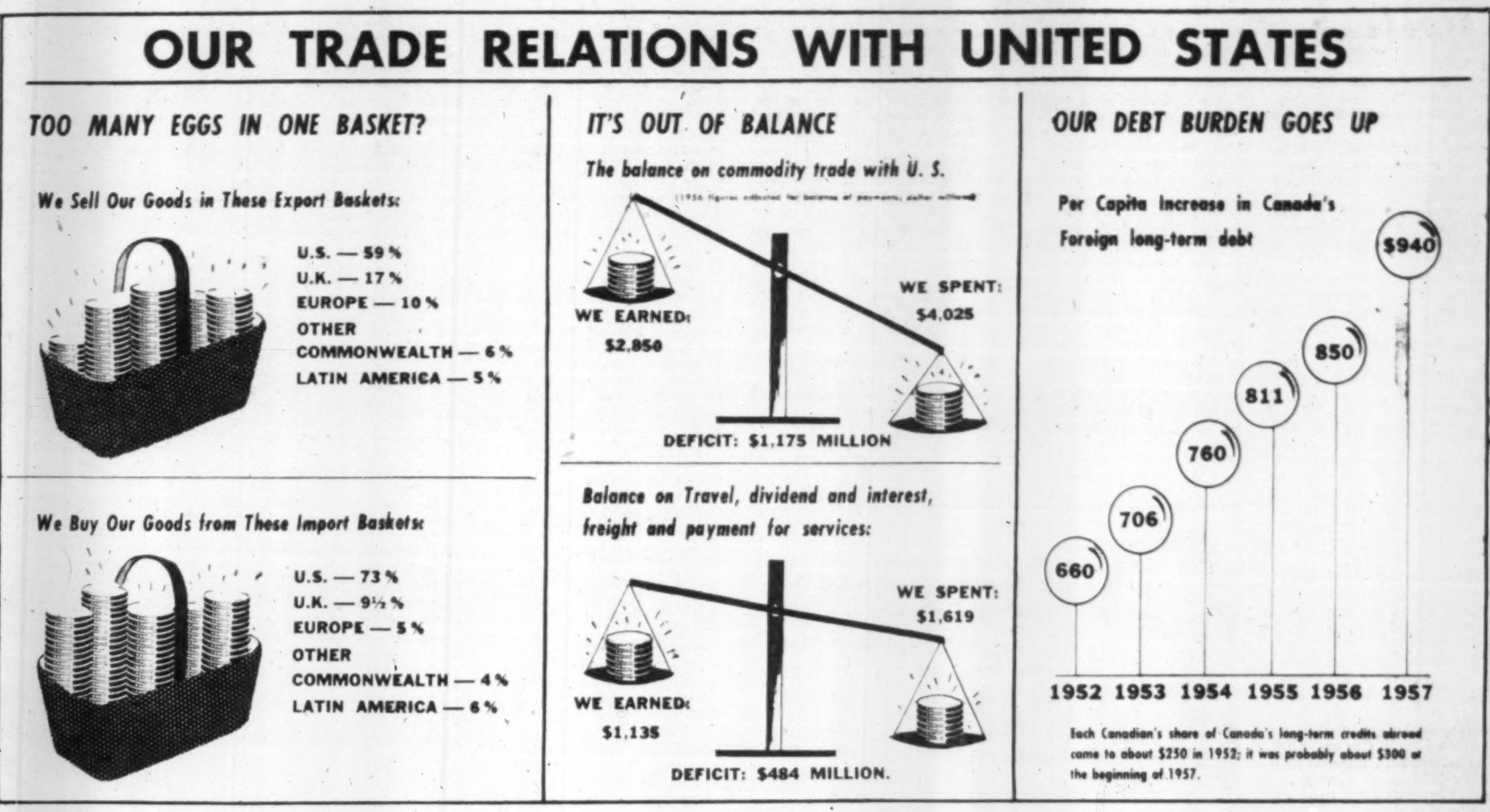
FP herewith begins a series of articles examining the facts of our external trade, the policies which have inspired it so far, and the alternatives which the Conservative ministers must consider.

To follow Mr. Diefenbaker's weekend talks with Secretary of State Dulles, this first article discusses relations with the United States.

It describes contrasting Liberal and Conservative attitudes.

And it gives the first published account of how President Eisenhower presented Mr. St. Laurent, at their first meeting in 1953, with a proposition for free trade between Canada and the U. S. And of how Mr. St. Laurent turned it down and why.

Later articles will continue discussion of our relations with U. S., examine the prospects for a Commonwealth Trade Conference, and consider Canada's relations with the planned European free trade area.



OTTAWA (Staff)—The conduct of Canadian relations with the United States is the greatest problem facing any Canadian government.

U. S. relations dominate all economic policy and vitally affect all business, trade and finance.

Will Prime Minister Diefenbaker's approach be different from Mr. St. Laurent's? He says he is determined to strengthen Commonwealth ties. He says he wants to divert some of our trade away from the U. S. to overseas countries.

What sort of changes are the Conservatives likely to make? How will they affect your day-to-day business?

The Conservatives have come to power at a time when U. S. investors and corporations hold more control over the Canadian economy than ever before. U. S. decisions have never been so important both in our external trade and our internal economy.

The Broad Look

What will strike the new ministers, as they look at trade policy?

They will find Canada at the crest of a wave of what people called "prosperity," and liking it.

They will find Canadians spending with a gay and lavish hand, and buying more from the U. S. than ever before at a discount of 5%.

They will find Canada, as a nation, earning enough exchange to pay U. S. only 70c on the dollar.

Three quarters of Canada's foreign spending is in the U. S.; and ministers will soon learn that it is done on a strange, new "deferred payment" plan. Canada provides goods or services worth 70c for every dollar it spends in the U. S. We earn five cents from overseas countries and put it against our U. S. deficit. But we still have 25c on every dollar on which payment is deferred.

Part of this is simply borrowed, with interest charges to be met every year, and a fixed date for repayment.

The other part is in equity stocks, which carry no fixed charges. But every dollar of it represents a little more foreign control of Canadian businesses and Canadian resources.

To a new Conservative minister the whole picture must look like a mescalin-inspired dream. And here is the gaudiest touch of all:

The Canadian dollar will buy less and less Canadian goods each month, but it buys more and more foreign goods.

The Effects of Inflation

As inflation reduces its real value, the foreign demand for it continually grows.

The purchasing power of the Canadian dollar has already dropped farther and faster than the U. S. dollar, because the pace of Canadian inflation exceeds U. S. inflation. But foreign investors (and speculators) keep on demanding more and more Canadian currency in the exchange markets; so it gets a scarcity value.

Imports become cheaper than Canadian goods; Canadian producers and exporters get less and less return for their products; and the trade gap widens.

Our "prosperity," in fact, becomes more and more dependent on the fickle whims of investors and speculators in New York.

The new government has certainly inherited an extraordinary situation.

How did the Liberals manage it?

What will the new government do differently?

The first part of the answer is simple: The Liberals didn't pretend to manage it. They claimed that free market forces were the best long-run solvent.

If Liberal leaders ever acknowledged uneasiness — and some of them certainly felt it —they would say that there was nothing the government could do. One minister said: "Growing subservience to the United States is inevitable, anyway."

The Conservatives, obviously, don't yet know how they may manage economic policy in this crucial pass, nor even whether they can manage it.

To the Conservatives' complaint that too much of our trade is concentrated on the U. S., the traditional Liberal answer was: "It's not Canada's fault that Commonwealth and overseas markets were closed to us after the war. That was

ministers who would have preferred to abandon it—as the Conservatives probably will.

At his very first meeting with President Eisenhower, Mr. St. Laurent found himself being invited to bring Canada into a special trade deal with the U. S. far more exclusive and intimate than he or his government were prepared for.

First of a series of articles on Canada's trade

Part I: The U.S.
By MICHAEL BARKWAY

the decision of other countries. It could have been very serious for us; but the effects were mitigated by the development of a greater market in the U. S."

To the Conservative complaint that too much U. S. investment is threatening Canadian independence, the conventional reply has been: "Do you want new capital for developing Canadian resources, or don't you?"

Facts Alarming

Yet the facts are, in some respects, alarming. Canada has been depending on foreign investors for one dollar out of every three invested in this country.

As the Tories see it, the St. Laurent-Howe ministry made tremendous efforts to be "buddies" with Washington. In Conservative eyes, this falsified the relationship between the two countries. It may have deceived Canadians, they say, but it didn't impress Washington.

Conservatives, of course, point to the things that didn't go right with the U. S. for all the display of intimacy; to the unheeded protests about wheat disposal, the bans on dairy products, the GATT waiver pushed through against every Canadian pressure, the quotas on grains, the narrow range into which our exports have been squeezed, the recurring threats of action against our fish, and lead and zinc, and oil.

The Liberals reply that their patient efforts to keep close and friendly relations, personally as well as officially, brought dividends for Canada. They point to the maintenance of our fish markets (so far); to the work of E. J. Cannon in helping Canadian exporters through U. S. customs procedures; to the President's rejection of several Tariff Board recommendation for increasing tariffs or reducing quotas. (Rye and alsike seed were the latest).

Yet, the picture of a special, intimate, favored position in Washington never convinced even all the members of the Liberal cabinet. There were

It's more than four years ago now, and the Eisenhower cabinet was very new at the time. But what took place at that meeting is a fascinating glimpse into history.

The meetings were in Washington in May, 1953. Mr. St. Laurent took with him L. B. Pearson and J. W. Pickersgill.

On the U. S. side Mr. Eisenhower brought to the conference table John Foster Dulles, Charles Wilson (Defense) and George Humphrey (Treasury). Then as now, the Canadians' chief concern was with U. S. trade policy.

Then as now, Agriculture Secretary Benson's agricultural policies were damaging Canadian farmers.

The U. S. ministers didn't seem to know about these threats to Canada. When agriculture was mentioned, they said: "Perhaps we should have had Benson here." The discussion got no further.

When lead and zinc were mentioned, they expressed surprise and distress that Canadian-U. S. relations should be jeopardized: it was a new idea to them.

And it led them to suggest that, as between Canada and President Eisenhower, Wilson and Humphrey, they came out with the proposition that there ought to be free trade between Canada and the United States.

The minutes recorded: "The President enquired whether there was any objection to a customs union."

The discussion showed it wasn't a full customs union he had in mind, with a common tariff against the rest of the world, but just a close reciprocal tariff deal between our two countries. Perhaps the embryonic idea was something like the free trade area now proposed in Europe.

Mr. St. Laurent did the main job of straightening things out. He reminded the Americans of GATT, which the U. S. had been pushing. He mentioned the principle of "most-favored-nation treatment." One response from the U. S. side was: "Couldn't we have a sort of 'super - favored - nation' treatment?"

The Canadians explained very clearly that Canada wanted multilateral trade, not a special private deal. We wanted to sell in the U. S. But we wanted overseas markets too. So we must also buy from overseas.

The U. S., Mr. St. Laurent reminded the Americans, had always objected to Commonwealth preferences. Canada had agreed not to extend them. We couldn't immediately turn around and make a new preference arrangement with U. S.

All this is water over the dam now. Two of the U. S. spokesmen—Wilson and Humphrey—had special connections with Canada in private life. All the Americans were very new to public office.

But there's still some interest in the fact that their first inclination was to tear down all trade barriers between Canada and U. S. They showed no similar enthusiasm for reducing tariff barriers for the world in general.

Even Mr. Eisenhower, who —then as now—was the only one who seemed to grasp the importance of U. S. trade policy for political and strategic the U. S., tariffs ought to be drastically reduced; but not for other countries.

Customs Union?

After a huddle between relations, was worrying—then as now—about creating pockets of unemployment in the U. S. and preserving unity in the Republican party.

The incident has more than historical interest because the idea of a special Canada-U. S. deal may still be in the President's mind. He has repeated it to Canadian visitors within the last 12 months.

The free trade proposition which Mr. St. Laurent wouldn't look at is not likely to be taken up by the Conservatives either.

As the Tory ministers get down to detailed consideration of trade policy they'll start with the fact of the huge Canadian trading deficit with the U. S. — both on commodity trade and on "invisibles" like tourism, interest payments, freight charges, etc.

Here is a view of the import picture, as it may appear to the new government. (A subsequent article will examine the export and capital inflow side).

THE TRADE DEFICIT:
1. Imports

You'll soon be hearing a new point of view on Canada's huge splurge on imports.

Last year, we spent $1,865 million on capital goods—40% more than in 1953.

But we also spent $1,630 million on consumer goods—26% more than in 1953.

The U. S. incidentally, supplied 86% of the capital goods —about the same as in 1953; and 69% of the consumer goods (61% in 1953).

You may expect the new government to consider afresh the impact of all these imports on Canadian manufacturers.

The position of Canadian manufacturing is not reassuring.

An analysis made by **FP**, Jan. 7, 1956, showed that manufacturing was lagging well behind in Canada's post-war growth. Up to the end of 1954, at least, it was getting a diminishing share of the national in- relatively good year). come. At that time **FP** said:

"Manufacturing appears to be gently, gradually, but definitely declining in importance."

If that was true at the end of 1954, it can be repeated with twice as much force today.

The table shows, in value and volume terms, how little manufacturing output in Canada has grown since 1953 (a

In volume terms, it has increased less than half as much as consumer spending, and little better than one third of capital spending.

It is way behind the Gross National Product.

But imports have increased more than any of these.

By volume, imports were up 26%, Canadian domestic investment by 25%, consumer spending by 20%, gross national expenditure by 15%—and manufacturing by 9%.

The imports, you'll notice, show much less price change between 1953 and 1956 than any of the Canadian indexes.

There are two significant reasons:

—U. S. prices haven't risen as much as Canadian prices. Our inflation is worse by any standard.

—A small appreciation of the Canadian dollar, on annual averages, helped to reduce the price of imports to Canadians. This factor has been most important in the last 12 months, as the U. S. dollar has dropped from about 98% to below 95%.

The present exchange rate gives U. S. goods a 5% price advantage over Canadian goods.

Naturally Canadian manufacturers feel no great enthusiasm about the spate of foreign investment. What they see is that it brings imported goods at a 5% discount—on terms (for the nation) of 70% cash, 30% credit.

This is a beginning for a new look at economic relations with the United States, such as the Government is now starting.

Next week: Some of the facts Conservative ministers will face—on exports, on US investment, on processing raw materials.

How Imports Have Grown

RATES OF GROWTH, 1953-56

	Percentage Increase By Value	Percentage Increase By Volume
Gross national expenditure	22	15
Capital expenditure (Gross domestic investment)	37	25
Consumers' expenditure	23	20
All Imports	30	26
Industrial materials	33	n.a.
Capital goods	41	n.a.
Consumer goods	26	n.a.
Canadian manufacturing production	18	9

WASHINGTON

Charges Inject Zip In Gas Import Case

Special Correspondence

WASHINGTON, D.C. — The **Tennessee-Midwestern** case which has been dragging through Washington's red tape jungle for over a year, snapped into excitement this past week.

Charges of attempts at monopoly, bone-rattling of old Sam Insull and accusations by columnist Drew Pearson sparked the excitement over bringing Canadian natural gas into the northern Midwest area from the **Trans-Canada** pipeline.

The Justice Department cleared up the initial confusion by saying it has launched an investigation of charges of alleged attempted monopoly by **American Natural Gas, Peoples Gas, Light and Coke,** and **Northern Natural.**

Sen. Alexander Wiley jumped into the situation and said he hopes the Justice Department will quickly wind up its investigation. He wants the Canadian gas in his area as fast as possible.

The story goes back to the private sessions Tennessee head Gardner Simonds had with officials of American Natural, Peoples and Northern Natural.

The charge was made that officials of the three companies demanded that Simonds sell them 75% of the stock in the new pipeline from Canada to the Gulf of Mexico.

Simonds emphatically said "no." Tennessee is planning to build a pipeline up from the Gulf as well as one down from Canada.

Keeping an Eye

Sen. Wiley's legal counsel, Bolton Smith, says the 75% demand was made twice, and he says the Senate Anti-Trust Subcommittee also is keeping an eye on the case.

The first meeting of Simonds and officials of the other companies was said to have occurred in Chicago last December.

The second meeting was in Washington the next month.

Columnist Drew Pearson says American Natural, Peoples and Northern Natural represent the Insull holdings in Illinois, Indiana and Wisconsin.

Pearson says that Simonds offered these companies 40% of the stock of his Gulf-to-Canada pipeline but no more. This again was turned down, it is charged.

The attorney general of Wisconsin filed a complaint with the Justice Department against the three companies on March 13 of this year and it is on this complaint that the Justice Department is investigating the attempted monopoly charges.

• Why leave money in the bank at 2¾% interest when you can get 4%, 5% or more, in dividends from shares in sound Canadian corporations? Our weekly list shows the current price, dividend rate and yield on 114 dividend-paying stocks listed on The Toronto Stock Exchange — you may see this list by asking for a copy of "Investment Yields".

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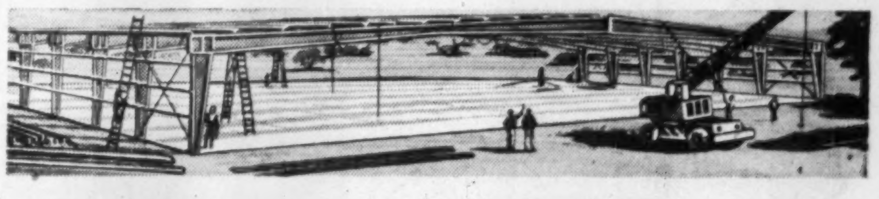

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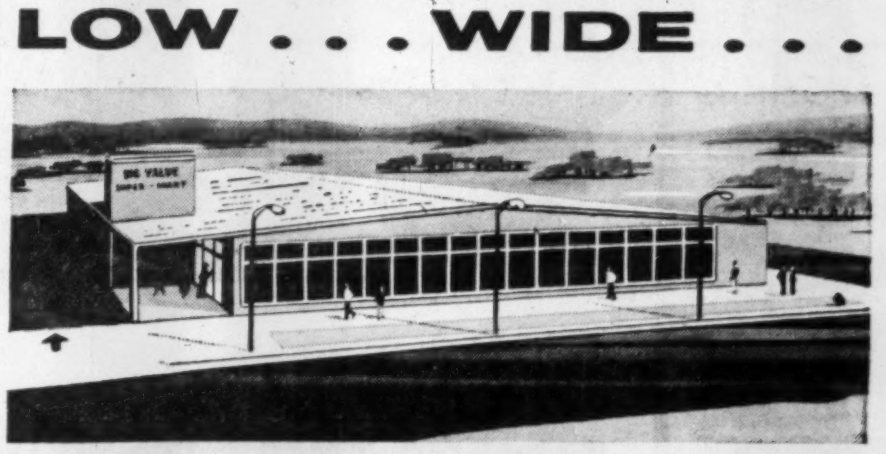

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U. S.-CANADA DISCOUNT

Smiles, Frowns Greet Dollar's New Strength

As the spread between the Canadian and U. S. dollars widened this week, so did the gap between the glee of importers and the gloom of exporters.

Early in the week, the U. S. dollar was worth 94 25/32 cents in Toronto's money markets.

In New York, our dollar closed Tuesday at a value of $1.05 17/32, the closest it had yet come to the November, 1933, peak of $1.05 20/32.

To importers, to tourists traveling in the U. S. or abroad, to holders of Canadian securities, the growing strength of our dollar is good news.

But to exporters of Canadian raw materials, to manufacturers competing with imported goods, and to merchants who offer goods and services to U. S. visitors to Canada, the exchange problem is now greater than at any time since it began in 1952.

Imports Are Cheaper

Much of Canadian industry has to buy components from the U. S., to be assembled here in the finished product.

For manufacturers in this category — the automotive industry is a prime example — each new dip in the U. S. dollar means that these imports are that much cheaper.

Ever since the Canadian dollar went to a premium over the U. S. dollar more than five years ago, this has been a major factor in offsetting the rise in costs of labor and materials generally.

This summer's Canadian visitors to the U. S. are also reaping the benefit of the 5c-plus premium on their dollar.

They are, that is, if they have had the foresight to convert their money into U. S. dollars before leaving home — U. S. merchants are notoriously loath to pay a premium.

Americans, of course, are not required to accept "foreign" money at all, and in the interior of the U. S. the public generally may not be aware of the Canadian dollar's worth.

A major cause of the strength in our dollar is the continuing heavy purchases of Canadian stocks and bonds by foreign investors.

Their purchases of Canadian funds to finance these transactions help to boost the value of our dollar, while their purchases of the securities themselves provide a form of support for Canadian stocks and bonds generally.

In the first four months of this year, foreign investors bought a net total of $59.9 million outstanding Canadian securities (12-month 1956 total was $207.9 million).

Although Canada repatriated from the U. S. $8.7 million in outstanding securities in January-April this year, some $367 million U. S.-pay bonds and stocks were issued by Canadian governments and corporations in the same period.

Exporters Hit Hard

The dollar bill has two sides, however. The side that exporters see has become increasingly gloomy as the discount on U. S. dollars has risen.

Prices of exports of major Canadian raw materials are quoted in U. S. terms. A ton of Canadian newsprint costs 134 U. S. dollars in New York, and the Canadian exporter must convert those $134 into Canadian terms at the going rate.

As the discount on U. S. dollars rises, the price received by the Canadian exporter in effect decreases.

President D. W. Ambridge of **Abitibi Power & Paper** this week attributed the decline in Abitibi's first-half earnings (from $1.85 a share last year to $1.51 this year) in large measure to the unfavorable exchange rate.

Other Canadian primary producers have the same complaint. Gold, for instance, sells in the U. S. at the official rate of $35 oz. in U. S. funds; this price was set in the mid-1930s.

That is now worth about $33 18 Canadian, or more than $5 below the figure prevailing when the U. S. dollar was at its wartime and post war premium of 10%.

Canadian secondary manufacturers, too, are finding themselves increasingly at a disadvantage if their products compete with imports.

Cotton textile producers in Canada, for instance, say that they are being hit hard by the dollar differential.

Their U. S. competitors have the advantage of substantially bigger domestic markets, which means that their production runs are longer and their costs-per-unit spread more thinly.

With the added advantage of a premium on Canadian funds, they can export part of their production to Canada at prices which manufacturers here are often unable to match.

The Tourist Trade

This summer's U. S. visitors to Canada are finding that their dollar is worth less than at any time in two decades.

In some cases, the discount becomes a source of misunderstanding and even unpleasantness.

But tourist industry men say that the discount is not having much effect on the flow of traffic across the border.

Heat waves, of which the northern U. S. has had several this summer, will send tourists packing northward to Canada's lakes and woods, unconcerned about foreign exchange fluctuations.

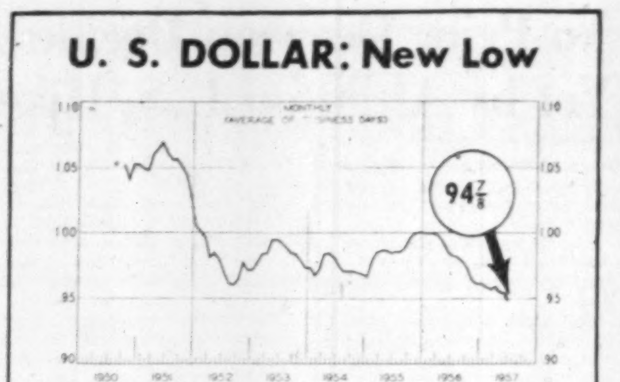
This is the sixth consecutive summer in which tourist camp operators, storekeepers, restaurateurs, taxi drivers and others have had to cope with the problem of accepting U. S. currency at par in the interests of goodwill, or lopping off the discount in the interests of earning a profit.

As the discount grows, fewer of these people are accepting U. S. banknotes at par, although silver is normally accepted.

Canadians themselves are finding that their change contains more U. S. dimes, quarters and half-dollars.

The U. S. tourist industry has been slow to use the dollar premium to lure Canadian travelers to "bargain" vacations in the U. S.

But Canadians seem to have got the idea anyway; north-to-south border crossings are higher almost everywhere than in 1956, as are Canadian inquiries being received by U. S. travel information agencies.



ANNOUNCEMENT

E. CLIVE KERR

Earl Putnam, President and Chairman of the Board of Canada Health & Accident Assurance Corporation, announces that E. Clive Kerr has been appointed a Director of the Company.

Mr. Kerr has been attached to the Financial Department of the Canadian Pacific Railway Company since 1918 and has been Treasurer of that Company since 1953.

Will Boosted U.S. Tariff Hit Our Woolens Industry?

MONTREAL (Staff) — Hard-pressed Canadian wool cloth manufacturers this week were preparing to face production cutbacks.

The reason: A recent hike from 25% to 45% in the U. S. ad valorem tariff on foreign wool cloth.

Canadian woolen makers feel that some of the production earmarked for the U. S. may be diverted onto the Canadian market as a result of the tariff hike.

In addition to this looming threat, the industry in recent weeks has been experiencing its first real competition from Japanese imports.

According to one wool cloth maker, while Japan has for some time been looming as a major competitor in this field, so far impact of wool cloth imports from that country has not been felt too keenly in Canada.

Those two factors, coupled with mounting imports from Italy, indicate a further decline in the domestic producers share of the Canadian market, some industry sources say.

Some wool cloth manufacturers take a slightly more optimistic view as to what the Canadian effects of the U. S. market hike will be.

One Explanation

One manufacturer explained it this way:

Foreign manufacturers by and large are already selling every yard of fabric that it is physically possible to sell on the Canadian market.

Even if the hike in U. S. tariff make it uneconomic for them to sell in that market, the Canadian market has reached saturation point as far as foreign wool cloth fabrics are concerned, and foreign mills will have to peddle their excess production elsewhere.

Last year Canadian mills managed to retain only 56% of the domestic market as against 62% in the previous year.

Estimates for the full year 1957 have placed domestic mill's share at only 52%, a further decline of four percentage points from 1956.

Caught in the midst of this stiff competitive situation, Canadian woolen mills have not fared any too well so far this year.

Many mills are now working on short time, prices generally have been very weak.

A number of manufacturers report that at the prices they are able to get for their production they have been able to recover little more than cost.

So far this year worsteds have not fared as badly as have the woolens.

One industry spokesman commented that this situation is little more than a temporary respite for Canadian mills concerned as it is occasioned largely by the fact that foreign manufacturers had failed to "hit" the major style trends that prevailed during the past season.

The hike in the U. S. tariff results from an automatic protective device built into the tariff structure of that country.

It is designed to assure U. S. producers of 95% of their domestic market.

When imports in any given year are at a rate which indicate that they will exceed 5% of the U. S. market, the tariff on imports is automatically moved up for the balance of the year.

"When imports exceed 5% of the domestic market, the U. S. moves its tariff up 20%.

"When Canadian mills lose more than 45% of the market in this country, we close up another mill," one industry official commented sadly.

Fraser Companies Profit Drops 25%

Fraser Companies, Edmundston, N.B., consolidated net profit for the six months ended June 30 dropped 25% to $2.5 million from like period last year. Earnings declined to $1.14 per share from $1.52.

Total sales value was about 3% lower.

Reduced sales volume, higher costs, increased transportation charges, and the greater premium on the Canadian dollar adversely affected net earnings, reports Chairman Aubrey Crabtree.

Demand for all company's products eased in the second quarter and resulted in reduced operations at the mills.

Here is company's statement:

6 Mos. Ended June 30:	1957	1956
Earns. after oper. exps., etc.	$7,176,768	$8,568,938
Less: Bond interest	52,500	56,875
Depreciation	1,959,874	1,803,985
Prov. for inc. taxes	2,622,000	3,320,000
Net profit	2,542,394	3,388,077
Net per common share	1.14	1.52

N. B. Appeal Court Reverses Ruling

From Our Own Correspondent

FREDERICTON, N.B.—A circuit court ruling that the province is a secured creditor with respect to monies collected under the provincial sales tax was reversed by the N. B. Appeal Court in a judgment handed down in a bankruptcy appeal.

The court upheld appellant counsel argument that the province, in bankruptcy actions, is not a secured creditor but only ranks as an ordinary creditor.

Chief Justice J. E. Michaud, in the circuit court judgment, had ruled provincial sales tax monies are a trust fund belonging to the province and do not belong to a trustee in bankruptcy for the benefit of creditors of a bankrupt person or corporation.

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LONDON OTTAWA WINDSOR CALGARY VANCOUVER
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New Transport Rate Helps Western Coal

OTTAWA (Staff) — Western Canada's hard-pressed coal industry will find it easier to sell in Japan.

The reason: An increase in the maximum federal subvention for transport costs to the west coast. Prime Minister Diefenbaker has announced the new limit will be $2.25 per net ton, up from $1.

The increase has enabled **Canmore Coal Mines** of Alberta's Cascade region to sell an anthracite-type coal to **Tokyo Gas.**

First shipment of a probable 50,000-ton total in the next six months will leave Portland, Oregon later this month.

The increase applies to all types of coal in B. C. and Alberta—although amount of the subvention per ton will vary with a mine's competitive position.

It will be of particular interest to coking coal miners in Alberta who are trying to sell to Japanese steel producers who, in turn, have been looking for supplies cheaper than U. S.'s Virginia fuel. (**FP**, July 13.)

It's expected here that the new subventions maximum will go a long way to help sales to Japan.

The new maximum is effective the first of this month until the end of the fiscal year Mar. 31, when the order-in-council expires.

It may be reduced, or amounts awarded may be lowered when port facilities are available closer to the mines.

There is no coal shortage in Western Canada. There's enough to export at a rate of many thousands of tons a year for more than a century.

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Cotton Openings Down 3% in '57

MONTREAL (Staff) — Activity in the Canadian cotton textile industry during the month of June —measured in terms of openings of bales of raw cotton—reached one of the lowest levels in the past three years.

Last month domestic mills opened 27,655 bales of raw cotton against 30,340 in the previous month and 28,977 bales in June of last year. Apart from July, when mills were shut down for two weeks' vacation, the openings were at the lowest level since August, 1954.

Chief reason for the decline appears to be that domestic cotton makers — concerned over a marked trend towards even greater "hand to mouth" buying on the part of their customers and eyeing mounting inventories — have instituted modest production cuts in various lines.

For the first half of this year, cotton bale openings totaled 186,605, down 3.1% from 192,585 in the corresponding period last year.

While activity will further slacken off this month, due to the traditional two-week shut-down for vacations, industry officials feel that given a good fall selling season the decline nevertheless could be made good before the end of the year.

ABITIBI POWER & PAPER CO. has redeemed an additional 3,625 preferred shares. Now 518,160 preferred shares outstanding.

CANADA MALTING CO. has redeemed an additional 650 preferred shares. Now 188,202 preferred shares outstanding.

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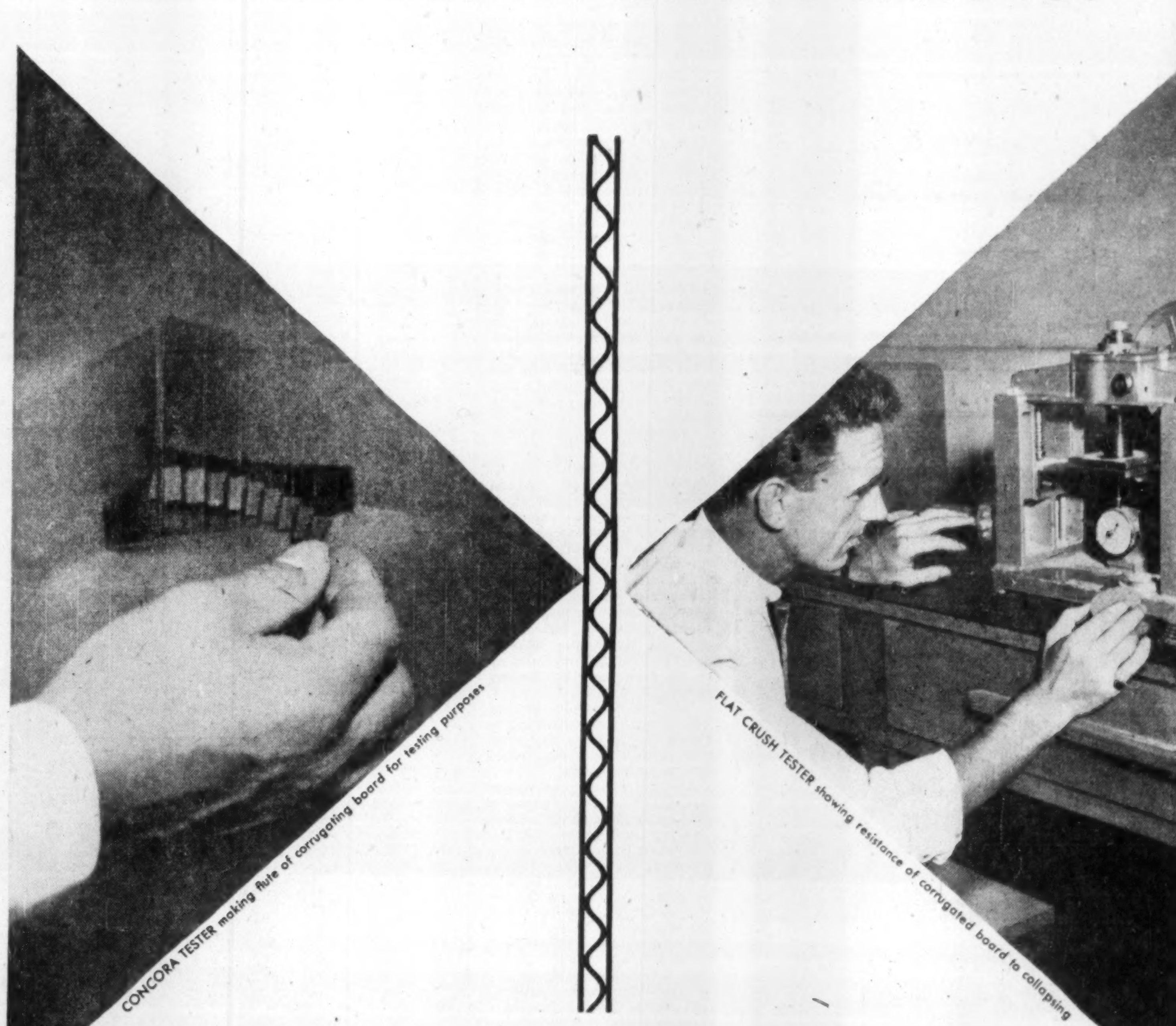

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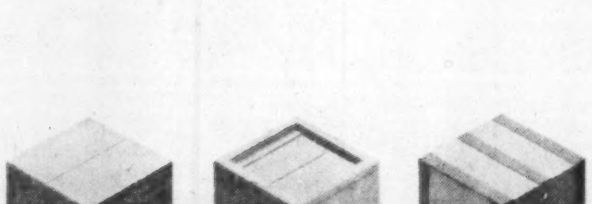

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He also specializes in the NEW PERSONAL (tax-exempt) PENSION PLANS for self-employed individuals.

A. V. ROE CANADA LTD. has issued an additional 500 shares as fully paid under terms of an option agreement. Now 4,763,500 shares outstanding.

A Londoner's *Financial Notebook*

*News and views on the British securities markets, specially written for **FP** by one of London's distinguished financial writers.*

Although the government has taken steps to restrict the pool of dollar securities available for purchase in the U. K. (**FP** July 20), the British investor's appetite for Canadian stocks appears to be as strong as ever.

The newly acquired scarcity value of these stocks has resulted in a further rise in the dollar premium. This has soared to 20% and over, compared with the level of around 7% before the Treasury's control measures of July 5.

Because of the rise in the premium, London prices of some of the favorite oil and pipeline stocks have hardened even when Toronto and Montreal prices have been sliding back. Market experts, not surprisingly, feel that at 20% the premium is vulnerable.

* * *

It is partly because of the premium element in the price that opposition has been growing to the terms of the **Massey-Harris-Ferguson** bid for **Standard Motor.**

Since the offer was announced the feeling has spread that M-H-F is trying to get Standard on the cheap at a time when the motor firm's own trading has improved.

First shot for the critics was fired by Julian Hodge, an accountant from Cardiff, South Wales, who announced he would circularize Standard shareholders advising them to hold out for better terms. His view is that the shares are worth 12s. or more, as against the equivalent of 9s. 6d. offered by M-H-F.

Standard's directors, headed by Lord Tedder, have recommended the offer, but "City" opinion is shifting to the view that M-H-F may have to step up its bid if it is to be sure of the required support.

* * *

Britain's motor manufacturers turned out 388,572 cars in the first six month of this year, against 412,907 in the same period of 1956.

Exports, however, reached 204,946 cars, compared with 181,435 in the first half of '56.

These figures go to confirm the recovery achieved by the industry since the Suez recession. The export figure of 204,946 was only slightly short of the record shipment in the first half of 1955, and the total value of all motor industry exports—at £220½ million—was, in fact, a record.

Exports of cars to the U. S. reached a new peak in June, a total of 8,300 for the month bringing the first half-year's exports to the U. S. market to 43,000. This was almost three times the figure for the first six months of 1956.

The U. S. was the leading buyer of British cars over this period, with South Africa second, New Zealand third and Canada fourth. Shipments to Canada in the first half of 1957 totaled 14,528, against 12,520 in the same period of '56.

In terms of value, car exports to Canada were second only to those to the U. S. Shipments in the six months to June 30 were valued at slightly over £6 million ($16 million).

* * *

Associated Television — the commercial TV company in which the **Daily Mirror-Sunday Pictorial** group has a large share interest—made an operating profit of £437,709 in the year to April 30, against a loss of £362,672 for the previous 15 months.

Chairman Prince Littler states that heavy losses were incurred last summer and it was not until October that the break-even point was reached.

In the year to April 30 there was an 83% increase in London homes receiving ATV. In the Midlands the increase was 103%.

Forward bookings by advertisers — the company's lifeblood—are higher than a year ago and Mr. Littler believes they will continue to build up to an even more satisfactory level.

With the growth in coverage and revenue they should, he thinks, go through this summer without incurring losses similar to last year's.

In spite of the marked improvement in trading results, ATV still has £483,794 deficit to carry forward.

Cumulative dividends on the share capital now exceed £200,000 and are payable in priority to any other distribution, so the company is not yet out of the financial wood.

The first object must be to clear off the debit on profit and loss and substantial progress on this score should be possible in the current year.

Commercial TV now has a firm hold in Britain, both on the public and on advertisers, and the number of homes capable of receiving it is estimated at about 3.5 million.

ATV has just registered an overseas company, with a nominal capital, to give facilities if required for selling television films and tele-recording abroad.

Though no promotional campaign is planned at present, the formation of this company marks a further important stage in ATV's development.

* * *

In a report on development in the U. K. iron and steel industry, the Iron & Steel Board states that in future large tonnages of ore may be brought from Labrador in U. S. ore carriers of up to 40,000 tons.

The possibility of ore being stocked at the deep-water port of Milford Haven and then sent to Cardiff and Port Talbot is being examined.

Britain imported nearly 14½ million tons of iron ore in 1956, including 1½ million ton from Labrador, and an additional 7½ million tons will be needed to meet estimated requirements in 1962. Labrador is expected to be one of the main sources of additional supply.

The board think there is a need for more development of overseas orefields and that it may be necessary for Britain's steel industry to broaden its overseas investment.

No Price Decision Decided Yet by Alcan on U.S. Hike

MONTREAL (Staff) – At mid-week, **Aluminum Co. of Canada** was carefully eyeing 1c per lb. increase in the price of aluminum pig in the U.S.

The increase was announced by **Aluminum Co. of America** this week and which became effective Aug. 1.

An Alcan spokesman told **FP** no change was presently contemplated in the company's Canadian and overseas quotations. No decision had been reached in respect of the U.S. market.

On the basis of past experience, however, it appears likely that Alcan will boost prices in the U.S. providing that Alcoa's $20 per ton price hike becomes general in the industry there.

If it does, the company treasury would be richer by $4 million (U.S. funds) per year on the basis of annual aluminum shipments to the U.S. which recently have been hovering around the 200,000 ton mark.

At the current rate of foreign exchange this would be about $3.8 million in Canadian funds.

After allowing for income taxes (47%) but without giving consideration to higher labor costs which loom on the Alcan horizon, this additional revenue would represent just under 7c per share on the 30,097,952 common shares of **Aluminum Ltd.** (Alcan's parent). Aluminium earnings in 1956 were $2.35 per share.

While Alcan announced it was not changing its quotations on the Canadian and overseas market for the present, there are some indications of a possible future price hike.

For one thing, the U.S. — the world's largest consumer of aluminum — sets the tone in other markets and any general increase in that country usually is reflected in other markets in due course.

Then too, Alcan is facing increased labor costs. It has been estimated (**FP** July 27) that a settlement at Arvida along the lines of the Barrett formula would cost the company from 6/10 of 1c per lb. in the first year of a three year contract to almost 1c per lb. in the third year.

The settlement at Arvida will undoubtedly set the pattern for Alcan's other Quebec operations. On the West Coast, pending wage demands are even stiffer than those being sought in Quebec.

An offsetting factor: Some sources feel in light of the currently weak aluminum market, ultimate amount of the price increase in the U.S. may stabilize at some what less than the 1c per lb. announced by Alcoa.

Will They Let Hal Banks Be a Citizen?

MONTREAL (Staff) — Next week Montreal Citizenship Court is due to hear the application of Seafarers International Union Boss Harold Banks to become a Canadian.

John McGough, pint-sized eastern and Great Lakes secretary of National Association of Marine Engineers—Banks' avowed enemy—announced he was planning to oppose the application.

Should sufficient evidence be presented then, the case would probably go to the Department of Citizenship in Ottawa.

And there it could become a thorny problem. Some Conservatives now holding cabinet rank were outspoken in their opposition days about Banks being allowed into Canada from the U. S. Now they will have to face the issue (**FP**, June 29).

(At mid-week Banks and another SIU official were arrested on warrants of defamatory libel, on complaint of Jacques Savard. They pleaded not guilty, were released pending preliminary enquiry aug. 6.)

Meanwhile Banks' fellow-waterfront-union executives were keeping the pot boiling. The SIU strike against **Canadian National Steamships** is entering its fifth week. Neither side at mid-week gave signs of moving toward settlement.

The dispute as to who really controls National Association of Marine Engineers—a vital segment of the merchant marine union picture—also continues. Both sides are exchanging law suits.

But this week almost all attention was focused on Banks. His tactics have often been tough, but his support has been worth winning for many influential men.

The next few weeks promise interesting developments. Until they occur the struggle for marine labor power will probably mark time.

ANNOUNCEMENT

ONTARIO HYDRO APPOINTMENTS

P. W. OLIVER

W. H. BARNES

R. H. NICHOLSON

The Chairman of Ontario Hydro, James S. Duncan, C.M.G., has announced the appointment, effective August 1, of three new Directors in the Commission's Personnel Branch, reporting to C. B. C. Scott, the Assistant General-Manager — Personnel.

P. W. Oliver, P.Eng., formerly Director of Collective Relations, becomes Director of Employee Relations. Identified with the Commission since 1925 and with personnel work, in various capacities, since 1948, Mr. Oliver will be responsible, among other duties, for the co-ordination of personnel policy throughout the Commission.

W. H. Barnes, who has served as a personnel officer at various Hydro projects and, previous to his new appointment, was Superintendent of Personnel at the St. Lawrence Power Project, becomes Director of Industrial Relations. With the Canadian Army for five years, Mr. Barnes subsequently served with the Federal Department of Labour as District Supervisor of Canadian Vocational Training, and joined the Commission in 1948.

R. H. Nicholson becomes Director of Personnel Services, and will be responsible for employment, salary administration, manpower planning and training. Mr. Nicholson, who served with the R.C.A.F., received his B.A. from the University of Toronto in 1948 and his M.A. in 1949. A former member of the staff of the University of Toronto and of McMaster University, he joined the Commission's Personnel Branch in 1955.

Grateful Citizen Gives $100,000 For Memorial Park

A $100,000 gift to commemorate a golden anniversary — and help to alleviate a city's acute downtown parking problem.

That's what Canadian industrialist Senator N. M. Paterson has offered to Fort William, Ont.

He has offered to purchase one of the city's oldest school sites, Central Public School, and donate it back to the city for a memorial park and car parking lot.

Senator Paterson is founder and president of **N. M. Paterson and Sons Ltd.** (shipping fleet and grain elevators), preparing to mark its 50th anniversary in February, 1958.

Said the senator:

"It is my desire to show my appreciation to the city where all my children were born and from where our firm has expanded."

The $10,000 estimated cost of demolishing the old school would be borne by the Paterson firm.

The city-block-square property, one block from the downtown shopping area, would be divided into a 120-car parking lot and a beautified park.

City Council and Board of Education have accepted the offer, in principle. Next step: Ontario Municipal Board approval.

The city's problem now: Raise $270,000 through debentures for a new school at McKellar Park, a city-owned playground several blocks away.

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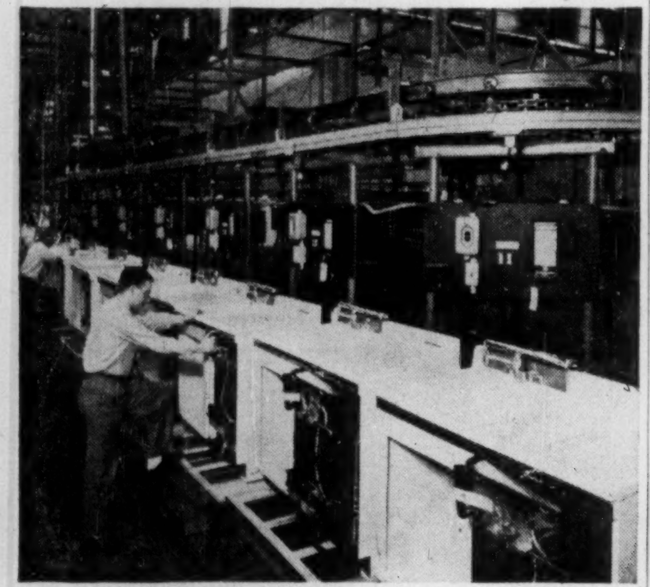

Dishwasher-sinks get complete cycle test

while moving steadily toward the customer

Time lost on the production line is money lost on the balance sheet. The MHS installation shown above *saves* time and money by accomplishing a complete cycle test for every dishwasher without stopping or slowing down the line.

Dishwasher-sinks ride a slat conveyor. The Monoveyor loop at rear travels at the same speed, carries test panels with electrical, water and drain connections. Hooked to its own panel, every appliance undergoes a complete test, through all its operations, while moving.

Mechanical Handling Systems designed, engineered and built this testing installation for one of the nation's largest appliance firms. It's one of many MHS production systems which are helping manufacturers produce better products for less money for the American people.

For most expert help in conveyors, systems, automatic handling and automation, call in the MHS engineer.

Canadian
Mechanical Handling Systems Ltd.,
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Sales Offices: Toronto, Hamilton, Montreal

VERTICAL LIFT-SPAN BRIDGE shown here is one of two lift-span superstructures to be incorporated into existing bridges over the Seaway Channel within the Beauharnois Canal. The contract totalling more than six million dollars was awarded to Dominion Structural Steel Limited by the St. Lawrence Seaway Authority.

SEAWAY'S FREEWAYS

An example of Canada Iron's Teamwork

Here is an interesting example of ingenuity. Dominion Structural Steel will fabricate and erect two mechanical lift-span bridges, each carrying highway and railway traffic, and incorporate them into existing ¾ mile long bridges which span the Seaway Channel within the Beauharnois Canal. Other members of the Canada Iron Group will join the team with contributions of material, equipment and engineering knowhow for such vital components as electric motors, control apparatus, mechanical operating equipment and wire rope. These links in the Seaway's Freeways are being constructed by one of Canada's foremost engineering groups.

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C. M. Lovsted & Company (Canada) Limited
Paper Machinery, Limited
Paper Mill Equipment, Limited

I-M

ANNOUNCEMENT

S K F President

NILS F. KALLIN

Announcement is made of the election of Mr. Nils F. Kallin as President of Canadian S K F Company Limited. Mr. Kallin has been associated with the SKF World Organization since 1929. He held positions in several European countries and for many years was Managing Director of SKF affiliates in the Far and Near East.

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LABOR ROUNDUP

By JACK McARTHUR

Crucial Pier Bargaining Starts

Longshoremen Want Plenty, But Not $2.66 An Hour

Toronto stevedoring companies now are mulling demands by International Longshoremen's Association.

To mid-week, neither side had commented on this first step in bargaining a contract which has many implications for Canadian and U. S. Great Lakes ports (**FP**, July 27).

The probability: ILA wants wide-ranging wage and fringe improvements, including a large boost in the $1.62 hr. wage rate.

But, it's understood, the union isn't after the $2.66 hr. which is its goal in U. S. seaports. This will bring sighs of relief from management in many ports.

In a brief meeting early this week, the union gave the four firms involved its proposals for a contract.

Management reaction is expected soon.

The companies:

Eastern Canada Stevedoring Co.; Cullen Stevedoring Co.; Terminal Warehouses; Caledon Stevedoring.

What these companies and ILA agree upon—or refuse to agree upon—is going to be of importance for all lake ports and the labor future of the St. Lawrence Seaway.

Toronto is a foothold for what ILA hopes will be future big expansion of its lakes membership.

* * *

No Honeymoon In Labor Circles

June was a bad month for strikes.

Canada lost 220,720 man-working days in that month, compared with 144,700 in May and 78,160 in June last year.

(You can expect July figures to be bad, too. Some of the big strikes in June carried through July.)

Total loss in the first half was 590,480 days in 138 strikes and lockouts. This is lower than the 815,285 lost days in first-half, 1956, but a large portion of the 1956 loss was accounted for by the continuance of the **General Motors of Canada** strike from 1955.

Of the first-half loss this year, 62% occurred in May and June, when labor relations developed short-tempered overtones—which have continued.

* * *

More Scuffling On Picket Lines

The scattering of incidents of violence and near-violence which have marred labor relations in the last few months apparently isn't over.

Two more recent examples:

—This week a dozen or more strikers at **Lever Bros.**, Toronto, barricaded themselves in the plant. Police hauled them out. It looked like a labor play for publicity, with the 550-man walkout in its 12th week.

—Last week a small strike at **Canada Vitrified Products** in St. Thomas jumped into the spotlight with a hassle at company gates which slightly injured a number of truckers crossing picket lines.

These and others similar are once more raising the old argument concerning enforcement of the law during strikes.

Companies generally are careful not to operate during strikes, don't hire non-union labor, arrange with the union about executives crossing picket lines, etc.

But a number of firms this year —including the two mentioned above—have exercised their legal right to defy the strike edict and try to get back into operation.

* * *

Engineers Still A CLC Problem

The mid-summer lull affects organized labor as it does almost every other sector of the economy but Canadian Labor Congress has a few decisions to make at next week's executive meeting.

Among them:

—Whether to have next spring's CLC convention in Winnipeg, as originally planned, or change the locale. A possibility: Vancouver. Question is whether Winnipeg can accommodate the huge meeting.

—What to do about the suspended Operating Engineers Union. At one time it seemed the engineers would promise to stop raiding fellow-unions and be returned to good standing in CLC.

* * *

Labor Briefs

Penticton hospital nurses' success in getting wage boosts (after strike threat) is likely to make nurses elsewhere in British Columbia ambitious for higher pay.

Penticton increase was from $230 monthly to $244. There reportedly was wide sympathy for nurses' demands. Provincial government anxiety to keep hospital costs down was felt to be the stumbling block to the hospital board raising salaries.

* * *

Intriguing report from the U. S. says Auto Workers' much-heralded drive for shorter work week is bogged down before getting started. Union members, it seems, aren't interested in getting home earlier if there seems any chance at all they might make less money.

* * *

A four-day strike at the **Merck Co.** chemical plant at Valleyfield, Que., ended late last week with a two-year contract worth 24c hr. in rate boosts for members of International Chemical Workers Union. Work week will be sliced from 44 hours to 42, then to 40 next year. The Valleyfield plant is Canada's largest producer of antibiotics.

Still a Tough Nut for Unions 11,000 Montreal Cabbies

MONTREAL (Staff) — This city's rugged individualists—the taxi drivers—were vying with each other as usual this week for space in the traffic, and, for the time being anyway, not paying union dues for the privilege.

It looked very much as if the drivers had once again eluded the grasp of organized labor.

For the last 20 years various unions have tried to organize the 11,000-odd drivers. But each time they failed.

Reason: The vast majority of the cigar-chomping philosophers own their own hacks and don't see any point in organizing to bargain with themselves.

Most recent, and most nearly successful try at signing cabbies to union cards was the bid by the newly formed Taxi Drivers' Union.

There were many indications the powerful International Brotherhood of Teamsters was the guiding force in this attempt.

The union applied for certification and it was granted. A Parity Board was formed and drivers and owners found themselves required to pay 1% of their income into it.

This was altogether too much for some of the drivers. The Fraternity of Taxi Owners was formed and held a meeting. It ended in a shambles with pro-union and anti-union forces punching it out in the aisles (**FP**, May 18).

The Fraternity appealed to the Quebec government to review the whole matter of the certification.

Meanwhile, some anti-union drivers found their cabs with windows broken and sugar in gas tanks.

Last week, the government gave its answer. It had changed its mind and was preparing to disband the Parity Board. The drivers — most of whom hadn't paid anything into it anyway— seemed relieved.

At mid-week, Paul Fournier, vice-president of the Distillery Workers' Union, who also runs the Taxi Drivers' Union, made a speedy trip to Quebec City to try to convince the government it should reconsider.

On his return to Montreal he told **FP**:

"Even if the board is disbanded the union will continue its work. The taxi business in Montreal is very difficult. We still have a great many members and we must look after them.

"We may have to start again, but we are going to keep on working at it."

Quebec Unions Feel the Heat: Join Up Or Ready for Fight

MONTREAL (Staff) — Focus on the strike-torn Quebec labor scene will switch to Quebec City in September.

There the Canadian and Catholic Confederation of Labor is to hold a crucial convention.

Representatives from all the Quebec labor Syndicates (100,000 members) will travel to the meeting. They will join with the Confederation's executive to discuss its future.

For CCCL, there are two paths. Either the Syndicates throw in with the 1.5-million-member Canadian Labor Congress or they decide to fight it out with CLC for membership loyalty.

Indications are it will not be a happy meeting.

Top men in CCCL have long held that merger — or as they stoutly insist "affiliation" — with CLC is inevitable. It is a question of timing and terms.

Timing is already against CCCL. Two years ago the nearly formed CLC would have been glad to have CCCL's powerful support.

But now CCCL's weaknesses have been exposed. While officially polite when referring to the Syndicates, unofficially leaders of the CLC-affiliated international unions think they can take over Syndicates' membership by raiding, if necessary.

That being the case, any stiff merger terms CCCL might have in mind can be expected to receive a cool reception in CLC circles.

In fact, unions like International Brotherhood of Pulp, Sulphite and Paper Mill Workers would probably be sorry to see the Syndicates join the Canadian Labor Congress team.

That union has been raiding CCCL in Quebec with startling results and plans to continue. The longer CCCL stays outside the no-raiding security of CLC affiliation, the better for its enemies.

Yet within CCCL there is strong opposition to any affiliation. This comes largely from scores of minor officials who feel — with justification — that they would lose power and income if the old system should be discarded.

These opponents of merger have one strong weapon — sentiment. The present CCCL set-up appeals to French-Canadian nationalism. While, in fact, the once-strong Roman Catholic affiliation is now almost nil, it still looks good on paper.

As the September convention approaches, CCCL top brass will be hoping for good news from Arvida. There, a CCCL syndicate is on strike against **Aluminum Company of Canada.**

There were signs at mid-week that Alcan was going to have to give a little more than the 47½c it offered. The Arvida contract will serve as a pace-setter for the other CCCL-Alcan contracts in Quebec. And any settlement between Steelworkers and Alcan at Kitimat is unlikely until labor peace comes to Arvida.

Arvida has produced a glimmer of light for the Syndicates. Steelworkers Union advanced CCCL $250,000 to continue the struggle.

This suggested that Steelworkers wanted to assure support from the Syndicates for its long strike at **Gaspe Copper Mines** in Murdochville, Que. There, Steelworkers is in a bitter battle with the **Noranda** subsidiary.

Too, the strong steel union wanted to establish a solid front among Alcan employees, whether in Quebec or British Columbia.

Settlement Nears In Cement Strike

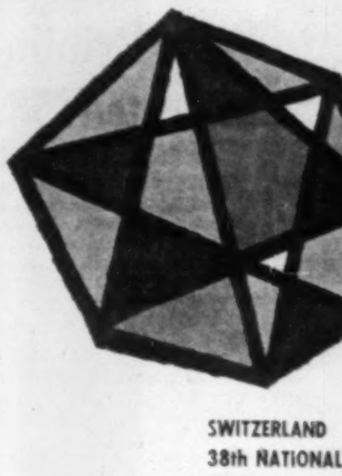
Export of Canadian cement to the U. S. will be back to normal with the expected end this week to the U. S. cement strike.

Canadian cement companies say there has been little or no increase in direct exports, although business has been reported "brisk" in the border areas (**FP**, July 27).

An official of a major cement company said at mid-week that it is impossible as yet to estimate the increased volume of exports resulting from the five-week tie-up of 71 plants.

"It hasn't been great," he said to the **FP**. "Right now I wouldn't even hazard a guess on dealer sales."

A new contract between the AFL-CIO Cement Workers and **Universal Atlas,** one of the U. S.'s largest cement-making firms, is expected to pave the way for a country-wide settlement.



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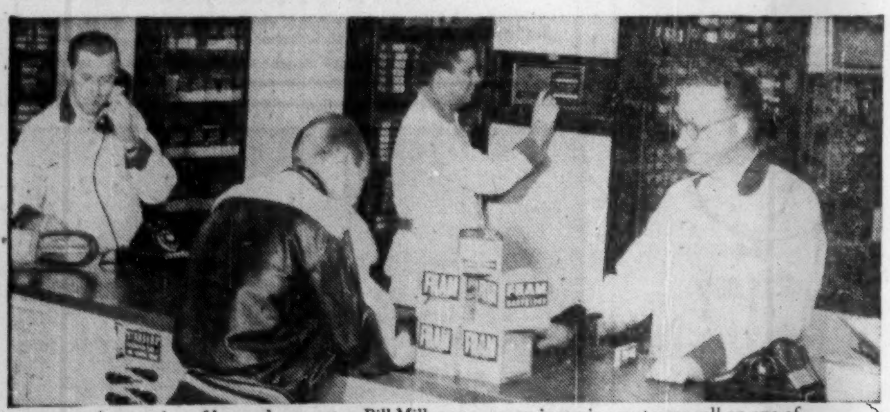
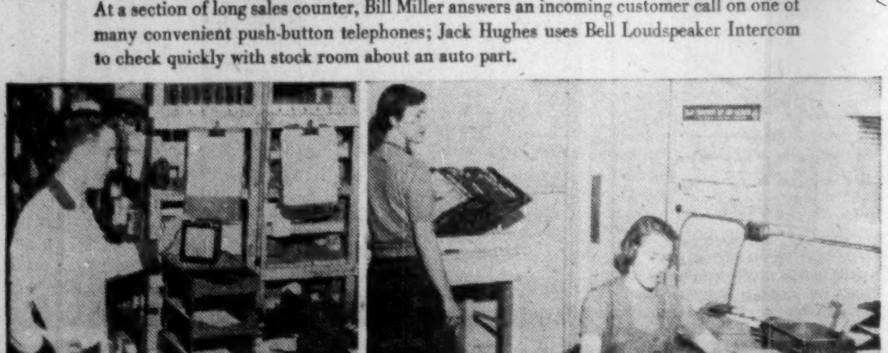


At a section of long sales counter, Bill Miller answers an incoming customer call on one of many convenient push-button telephones; Jack Hughes uses Bell Loudspeaker Intercom to check quickly with stock room about an auto part.



Bob Kennedy answers Intercom — discusses details of stock item with front counter.

Mrs. Audrey Campbell (seated) and Miss Joanne Davidson check stock records and pass information to front sales counter by Intercom.

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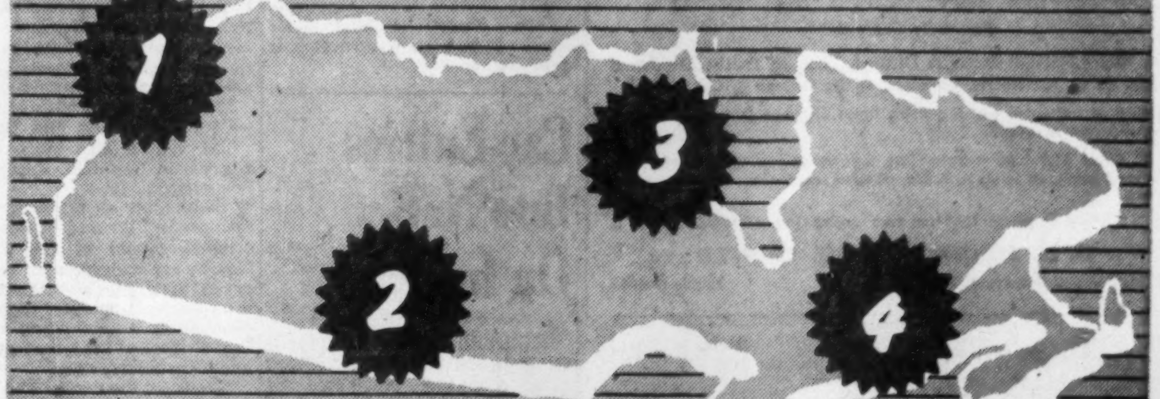

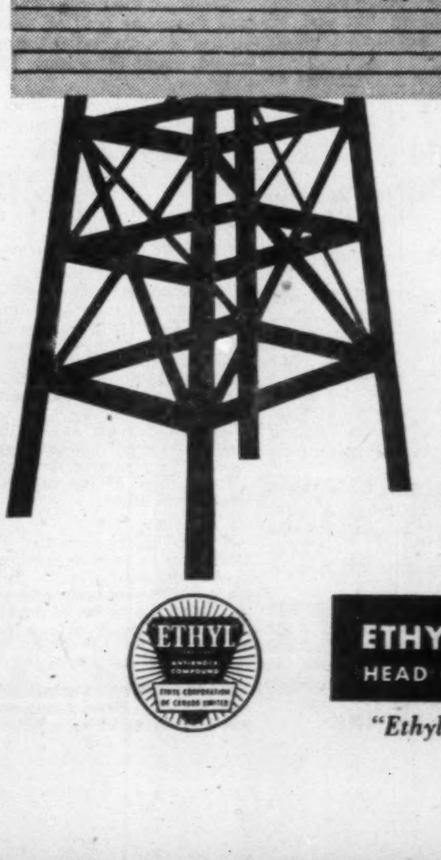

In every phase of its operation, Canada's Oil Industry has reached giant stature. It is rapidly approaching self-sufficiency in crude oil production, and it is matching the ever increasing Canadian demands for more petroleum products and especially motor fuels.

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More Tourists From Britain Expected '58

By DONALD GORDON

LONDON—Don't expect a flood of Englishmen touring Canada this year as a result of the recent relaxation of travel allowances announced in the U. K.

Britain's travel agents report numerous enquiries about visits to Canada, but say most of them are for next year.

"Most people had made their plans for holiday trips before the extra sterling allowance was anannounced," an official of **Thos. Cook & Son** told **FP**.

"However, it does look like there will be a substantial traffic next year."

Most tourists are planning two-country visits taking in Canada and the U. S. Few seem interested in spreading their funds over a longer trip to the Prairies and the West Coast.

However, one agent reports that a British doctor hopes to put in a 7,300 mile automobile trip using the roughly $270 allowed and some money advanced by Canadian friends.

Others report that a fairly lively business is building up in swopped tours, whereby the Englishman guarantees expenses for the Canadian or American coming here, and the Canadian underwrites the trip in his country.

Two of the most popular holiday itineraries according to London agents are a 7-day tour covering Montreal, Toronto and Quebec City and a 14-day tour of Montreal, Ottawa, Toronto, Niagara Falls, New York, Philadelphia and Washington.

THE ENTIRE 30-mile stretch of Bermuda's South Shore is dotted with beaches. Some are long sweeps of sand, others are divided by coral walls into protected little coves. For those who want a little formality, there are beach clubs where you can dine.

Queen of the Atlantic

By BEATRICE RIDDELL

Bermuda is anything and everything you want for a holiday. Visitors from eight to 80 flock to this tiny cluster of Atlantic islands with their famous pink-sand beaches.

Just 22 sq. miles in size, Bermuda appeals to every type of guest. There are private nooks for honeymooners, an unlimited supply of big game fish for the sportsmen, peace for tired businessmen, elegance for the elite, informality for family groups. And there's sun and scenery for everyone.

Canadians are popular guests. More and more of them are discovering Bermuda's charms. Last year nearly 8,500 Canadians (mainly from eastern and central provinces) visited the islands. So far this year the number is running 20% higher.

Canadians also form an important part of Bermuda society. Approximately 3,000 Canadians have chosen to live in these enchanted isles where year-round summer prevails.

Hotels employ a large number of the Canadian exiles and they occupy positions from general manager to bell hop.

If, by unfortunate circumstance you find yourself in King Edward VII Memorial Hospital, you will feel quite at home. Almost all the nurses and a large proportion of the medical staff are Canadians.

It is easy for Canadian tourists to visit Bermuda. It takes just five hours by air. **TCA** operates direct tourist class flights ($131.60) from Toronto on Saturdays and Sundays; from Montreal on Tuesdays.

First class or tourist flights are available from New York via **BOAC**, **BWIA**, **Pan American**, **Cubana**, **Eastern** or **Avianca** air lines. First class return fare is $161.

For those who have a little longer to spend, the two-day sea voyage or longer cruise is enjoyable. Queen of Bermuda and Ocean Monarch sail from New York. Minimum return fare: $125.

Hotel accommodations include large luxury hotels, small hotels and guest houses where the atmosphere is friendly and the service excellent. Rates, usually on the American or Modified American Plan, range from $8 to $25 per person per day.

Large hotels, (self-contained resorts) include **Elbow Beach Surf Club** on the south shore with its private beach, **Castle Harbour** overlooking Harrington Sound and close to fashionable Tucker's Town, **Belmont Manor & Golf Club** with its championship course.

The **Bermudiana**, an important social centre of the colony and the **Princess Hotel** are located in Hamilton. The **St. George Hotel** stands on a hill overlooking the old town of St. George's.

Smaller hotels include **Harmony Hall, Inverurie, Sherwood Manor** and the **Empire Club** (formerly **Windsor Hotel**).

Guest houses are delightful—many of them old Bermuda estates set in charming grounds. **Glencoe, Mount Pleasant, Horizons** and **Rosedon** are some of these.

Other excellent guest houses are **Buena Vista, Deepdene Manor, The Ledgelets, Newstead, Palmetto Bay, Pomander Gate** and **White Sands. Waterloo House,** located on Hamilton Harbour and close to the shopping district is famous for its cuisine.

Cottage colonies are popular. Among the better known are **Reefs Beach Club, Faraway, Ariel Sands, Cambridge Beaches, Pink Beach** and **Scarrington.** Also well known are **Bermuda Cottages,** individual housekeeping cottages separately located on or near south shore beaches.

There are two exclusive clubs —**Coral Beach** and **Mid Ocean.**

The visitor finds much to do and see in Bermuda. Here are a few suggestions:

- **Sightseeing** — especially the 17th century town of St. George's, original capital of the colony. Nearby are underground caves of crystal stalactites and stalagmites, a government-operated aquarium (containing a fascinating collection of tropical fish), ancient forts and a perfume factory.

Hamilton, the capital and shopping centre as well as Somerset —rural western end of the colony —hold many attractions for the sightseer.

Taxis, with driver-guides who know Bermuda inside-out, cost $7 for half a day, $14 for a full day. There are also horse-drawn carriages for more leisurely outings.

Motor-assisted bicycles cost $4.50 per day or $25 per week.

All-day cruises by motor yacht from Hamilton to Somerset feature lunch, rum swizzles, calypso music and stops for shopping. The all-inclusive rate is $7.

There are underwater sights too.

These may be seen from a glass-bottomed boat for about $2. Colorful fish and underwater vegetation are best seen when the sea is calm.

- **Swimming** is the most popular sport in Bermuda. There are delightful beaches all over the islands and in spite of the smallness of the resort you can almost always find a secluded spot from which to soak up the sun.

Some hotels and guest houses have beaches right at the front door. Others have private beach areas nearby and supply frequent transportation. A number have large modern swimming pools.

- **Fishing**: More than 335 varieties of fish have been caught among Bermuda's reefs, and 267 more in the open sea. During the past year alone, six light-tackle world record catches were made. Fishing is in season all year long, and day trips to the open sea may be arranged through the hotels.

Surf fishing, which means wading shoulder deep into the breakers, is also popular.

- **Golf**: The islands boast three excellent 18-hole courses — **Mid Ocean, Riddell's Bay,** and **Belmont Manor.** There are also two nine-hole courses. Green fees range from $2 to $5.
- **Tennis:** Many hotels have their own tennis courts. There are five public courts where for $1 you can play all day.

Yachting Capital

- **Yachting:** Bermuda has been called the yachting capital of the world. One of the best ways to explore Hamilton Harbour, with its many inlets and coves is to hire a sailboat. Several classes of craft are available at different prices.
- **Dining:** Since most hotels are on the American Plan, "eating around" is not as common here as in some resorts. But a number of hotels, including Castle Harbour, Bermudiana, Harmony Hall and St. George, have reciprocal arrangements to permit dining out.
- **Night Life:** There are no real night clubs in Bermuda but hotels offer excellent entertainment including world famous bands (traditional and calypso) and floor shows featuring name artists. They all welcome visitors.
- **Shopping:** Hamilton has many famous shops featuring luxury items from Britain and Europe. Specialties include china, glassware, cashmeres, linen, tweeds —and of course, beautifully cut Bermuda shorts in a variety of fine materials.

Surf Club Renovated

Since U. S. troops evacuated Bermuda's **Elbow Beach Surf Club** in 1947, extensive renovations and modifications have been carried out each year to make this one of the finest hostelries in the world.

By 1953, nearly $425,000 had been spent on improvements to the hotel grounds, outdoor dance patio, beach area, main lobby, reception desk, dining room and sun lounge.

Since that date, annual cost of overhaul and regular maintenance has amounted to about $240,000.

Early this year, renovation and redecoration of bedrooms in the centre section of the hotel was completed at a cost of $100,000.

Although beach and bathing facilities are amongst the finest in Bermuda, plans have been drawn up for possible future construction of a luxurious swimming pool incorporating a circular outdoor dance area. Cost of such a development would be around $170,000 to $200,000.

Car Entries Into N. B. On Increase

From Our Own Correspondent

FREDERICTON, N.B.—Tourist car entries from both U. S. and other Canadian provinces into New Brunswick to the end of June show a substantial jump over last year.

During the first five months of this year, the number of foreign vehicles entering the province for 48 hrs. or longer showed a 13% increase over the corresponding period last year.

Entries into the province during May 1957 were up 18% over May a year ago.

For the first time this year, the N. B. travel bureau is carrying out a survey of Canadian cars entering the province through six major customs ports, including St. Stephen.

The figures for June showed a total of 5,441 non-N.B. Canadian cars entering the province through Canadian Customs ports. Most of these cars originated in Ontario or Quebec.

A bureau check at three North Shore entry points, where a count of non-N. B. cars is made, showed a 28% increase. During June 2,011 more cars were recorded than in June last year.

U. S. tourist car entries through port of St. Stephen during June totaled 6,590 compared with 5,229 the previous June. Entries on July 4, the U. S. national holiday, numbered 724 cars compared with 414 on July 4, 1956.

Travel Briefs

A new low-cost, seven-day tour to Bermuda is being offered by **BOAC** in association with **American Express Co.** Tariff, starting at $143, includes roundtrip air transportation from New York, accommodations at any one of 40 hotels or guest houses, specified meals, airport-hotel transfers.

Tourists may use any of BOAC's regular Viscount tourist flights — recently increased to 12 weekly.

For further details consult your local travel agent.

• • •

A face-lifting operation, costing $500,000, is to be performed on Bermuda's Princess Hotel. To take place in the near future, the project calls for replacement of the old section of the hotel with a modern building.

• • •

A scholarship to Cornell University's School of Hotel Administration has been initiated by a gift of $500 from the **Bermudiana Hotel** in Hamilton, Bermuda. In memory of Robert W. Samson, for many years manager of The Bermudiana, the scholarship will be open to sons and daughters of travel agents and their employees.

• • •

Seven million foreign tourists (other than transients) visited Italy during 1956, according to the **Italian State Tourist Office**. The largest group were Germans, who comprised 22% of the total. North American visitors showed preference for art centres and larger cities.

• • •

An attractive new booklet on Bermuda has been put in circulation by the **Bermuda Trade Development Board.** The 16-page brochure, with blank space on the cover for travel agent's name, is well illustrated, carries a map of the islands and gives a detailed list of the colony's many attractions.

FARAWAY
COTTAGE COLONY

- **FARAWAY**, overlooking a broad sweep of the blue Atlantic, is Bermuda's newest cottage colony. Its lovely setting on the South Shore of Warwick makes it one of the few places in the Coral Islands where guests have their own private beach. The soft, pink sands of FARAWAY's beach are only a three-minute walk from the cottages.
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- Guests of FARAWAY enjoy its informal atmosphere, good food and comfortable accommodations. Every cottage and room has its own entrance and bath; furnishings are modern, with innerspring mattresses, radios and telephones. Meals are served in the dining hall built near the main house and cottages. FARAWAY offers either the bed-and-breakfast plan or rooms with two or three daily meals. FARAWAY is not far from four hotels and dancing, entertainment, a golf course and tennis courts. Sightseeing is arranged by the management.
- Many Canadians come back to FARAWAY year after year.
- See your Travel Agent or write Peter Petty owner-manager, Warwick, Bermuda.

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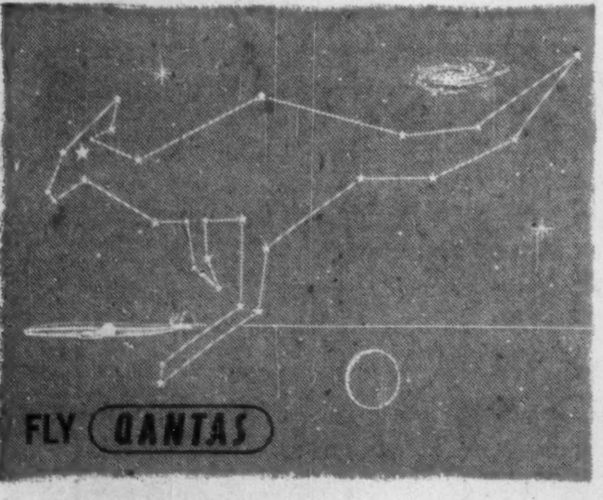

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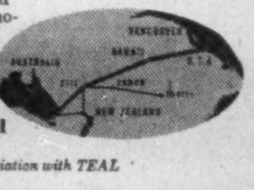

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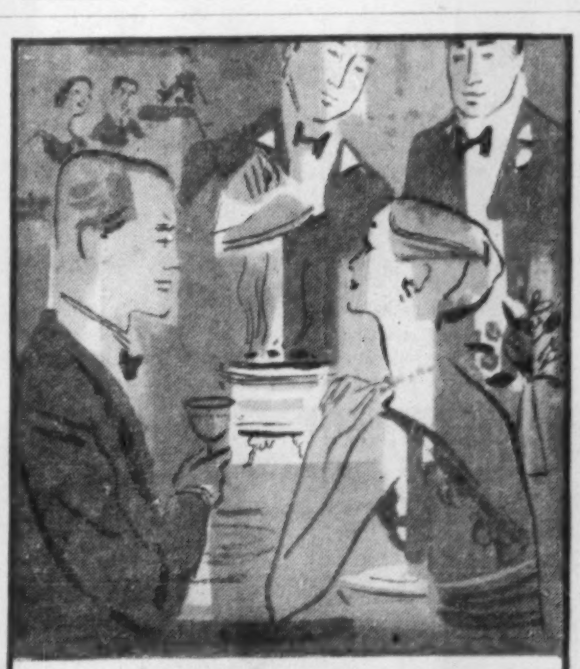

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Bruce Hutchison writes about:

Will Experts or Politicians Control Monetary System?

By BRUCE HUTCHISON

Not long ago a fascinating, misleading and highly important news story came out of Prince Albert, where Mr. Diefenbaker enjoyed a holiday.

According to the British United Press, "one correspondent asked him (the prime minister) how he and his cabinet colleagues proposed to escape from the domination of the experts of the Bank of Canada, department of finance and other branches who, in effect, have been determining the taxation and economic policies which the government should pursue."

It would be hard, even on a fishing trip near Prince Albert, to devise a more loaded, phony and completely irresponsible question.

The whole premise is false. For the St. Laurent government was not under the "domination" of its experts and, indeed, might still be the government today if it had listened more to them and avoided certain fatal mistakes.

To ask the new government whether it will be dominated by its experts is like asking a man, yes or no, whether he has stopped beating his wife.

Mr. Diefenbaker replied, quite properly (though unnecessarily) that he and his colleagues would never be the "prisoners" of the Ottawa brain trust.

Who ever thought they would?

But Mr. Diefenbaker's casual reply to a ridiculous question on a fishing trip meant, or at least implied, much more than the questioner seemed to realize.

It strikes, however, clumsily, at the root of a primary principle in Canadian government. It strikes specifically at the position of the Bank of Canada.

Whether the Bank of Canada was right in limiting the nation's money supply and, as a result, letting interest rates rise, is one question which I would answer in the affirmative but will not argue here.

Is The Bank In Control Of Itself?

An even larger question, implicit in the holiday conversation of Prince Albert, is whether the bank is an independent agency in the field of money, or whether it is the creature of the government. A very great deal hangs on the answer.

When Woodrow Wilson—a political Democrat and also a philosophical democrat — founded the Federal Reserve Board he held that the management of money was too complex, delicate and dangerous to be trusted in the hands of politicians.

The government and the legislature, said Wilson, must set the general policy of the nation but its execution, in the field of money, must be left to experts, whose job was to keep the value of money reasonably constant, if they could.

Therefore, the Federal Reserve Board was made independent, with complete control over the U.S. banking system and the credit structure, insofar as any machinery can control them, and insofar as the politicians would let the experts alone.

Since the Bank of Canada was founded by R. B. Bennett, it has been a foundation stone of political ethics in Canada that it alone should manipulate the levers of the money supply through such devices as interest rates.

Nevertheless, when the Bank began last year to tighten up on money in a bold move against inflation, its powers were immediately questioned and its policies attacked by various politicians.

Mr. Diefenbaker's off-hand answer to a loaded question must not be regarded, as a statement of policy toward the Bank or the civil service generally.

No doubt he will come to depend on his experts as much as any head of state and will be fortunate to find at his service some of the ablest advisors serving any government in the world.

Fleming Has Laid Down Opposite Views

But Mr. Fleming, the man who will mainly make our financial policy, as distinct from monetary policy, has gone much further than Mr. Diefenbaker and has laid down principles entirely at variance with those of the Bennett, King and St. Laurent governments.

Mr. Fleming argued in parliament last year (Hansard page 7459) that the minister of finance "has a very direct responsibility because the action taken by the Bank of Canada . . . surely has a direct influence on the whole field of responsibility of government in relation to fiscal matters."

The government, in Mr. Fleming's view, must take responsibility for the action of the Bank in limiting the money supply and letting interest rates rise.

Mr. Harris at once denied this responsibility. It was solely the duty of the Bank, he said, to "regulate the interest rate" since "that duty and responsibility is imposed upon the bank and not upon the government."

There a fundamental and historic issue was posed, though an election campaign temporarily submerged it: Is the bank or the government to manage the monetary system? Is money to be controlled by experts or the politicians?

That question must be answered, and the sooner the better because the monetary system currently requires the most competent management possible.

Mr. Fleming, it seems to me, is quite right in saying that government has everywhere accepted responsibility for the general health of the economy, above all for full employment.

The commitment is complete and so vast and incalculable that we have hardly begun yet to understand its possibilities, for good or bad.

Mr. Fleming will be quite wrong, however, if he means that government should or could attempt to manage in detail such intricate business as money and thus place it under the direct, daily pressure of politics.

Board Keeps Money From Politicians

The whole purpose of the Federal Reserve Board, the Bank of Canada and similar institutions elsewhere is to keep money out of politics, to leave it to non-partisan experts and thus, if possible, to maintain its value.

It is difficult to believe that Mr. Fleming, in attacking a certain bank policy, intends to reverse the basic principle of the bank's independence, but if he does, let us all realize what he is proposing.

Now, it is easy for a sincere character like Mr. Fleming to say that all public business should be controlled entirely by the people through their parliament and government.

But in our complex, brittle and perilously-balanced era, that democratic theory is subject to certain vital exceptions. One of them is the management of money.

If money is controlled by politics it soon will be worth very little and who, then, will be the victims of its debasement? Only the people.

Very wisely the people themselves have decided that the men who are to control money should know something about it, as most politicians do not, and should have no obligations to any particular area, class or pressure group, as all politicians have.

The people have no reason to regret that decision in a region of society which no ordinary man can hope to understand, in which no government can be safely trusted.

A sick man must decide for himself whether he wishes to undergo a surgical operation or whether he cares to live or die. The doctor cannot decide these questions.

Once the patient decides to go on the operating table the operation is solely the business of the surgeon. The patient must trust and cannot control him.

In the same fashion a parliament and government must decide on a general policy such, for example, as inflation or deflation, extravagance or economy, high taxes or low, free enterprise or socialism.

Once that decision is made, the policy must be executed in detail by experts whether they agree with it or not. No one else can possibly do the job.

Since the operation of the money system is the most delicate and dangerous that the body politic can undergo, surgery of the most expert sort is required if the patient is to survive, if money is to be preserved from the present cancer of inflation.

And no surgeon can operate successfully if laymen are breathing down his neck and jiggling his hand.

JOHN H. TAYLOR

vice-president, Weaver Coal Co., Toronto, has been elected president, Canadian Commercial Coal Dock Operators Association, and the Bituminous Coal Institute.

Du Pont Canada Earnings Rise In First Half

Earnings of **Du Pont Co. of Canada (1956)** in the first half of 1957 were $2,639,000, or 35c a common share. This is an increase of about 8% over earnings of $2,453,000 or 33c a share in same period last year.

Sales for the period were $35,742,000 as against $32,497,000 in first half of 1956, an increase of 10%. Increased costs, including "those inevitably incurred during the pre-manufacturing and initial operating periods" of large production units, partly offset the effect of increased sales, the company reported.

A commercial explosives plant near North Bay, Ont, went into production in June and a plant to make Orlon acrylic fibre at Maitland, Ont., is scheduled to start up this summer.

The growth in sales reflected increased acceptance of nylon yarn for automobile tires, heavier demand for Cellophane cellulose film and gains in such newer products as Freon fluorinated hydrocarbons and paints, the company reports.

N. B. Gets New Cattle Feed From Potato Starch Waste

From Our Own Correspondent

FREDERICTON, N.B. — What was recently thrown away as waste will soon become a new industry in New Brunswick.

The pulp waste from potato starch operations, now being emptied into the St. John River, is to be dried and used as cattle and swine feeds.

Valley Co-Operative Ltd., of Grand Falls, is to erect a $140,000 drying plant addition to its starch factory.

Only addition to the dried waste will be 4% blackstrap molasses to make it more palatable for the animals.

First plant of its kind in Canada, and second in North America, construction of the one-story tile addition and installation of machinery is expected to be completed early next spring.

It will manufacture 24 tons of mix a day and arrangements have already been made to take the waste from a second N.B. and a nearby Maine starch factory.

A Maine-manufactured dried potato pulp, similar to the proposed N.B. mix, has already been endorsed by the University of Maine animal industry department.

Feeding experiments carried out at the Dominion Experimental Station here were found to be satisfactory.

Leon Rideout, company president and sponsor of the project, says tests at **Canada Packers'** feed division laboratory, Toronto, show it compares favorably with western corn when used up to 400 lb. to the ton in finished feeds.

Wet pulp waste now being emptied into the St. John River runs around 99% moisture but will be reduced to 10% in the new drying plant.

This dried potato pulp contains about 5% crude fibre and hogs do very well on rations containing no more than that percentage.

Mr. Rideout claims the feed is extremely high in nitrogen-free extract which contains the more readily digestible carbohydrates.

Increased N.B.-manufactured feeds produced at a cheaper cost, he said, should have a tremendous effect on the province's economy, and also raise the standards of its dairy and swine industry.

Added feature of the new plant will be the elimination to some extent of the present potato starch waste pollution of the river.

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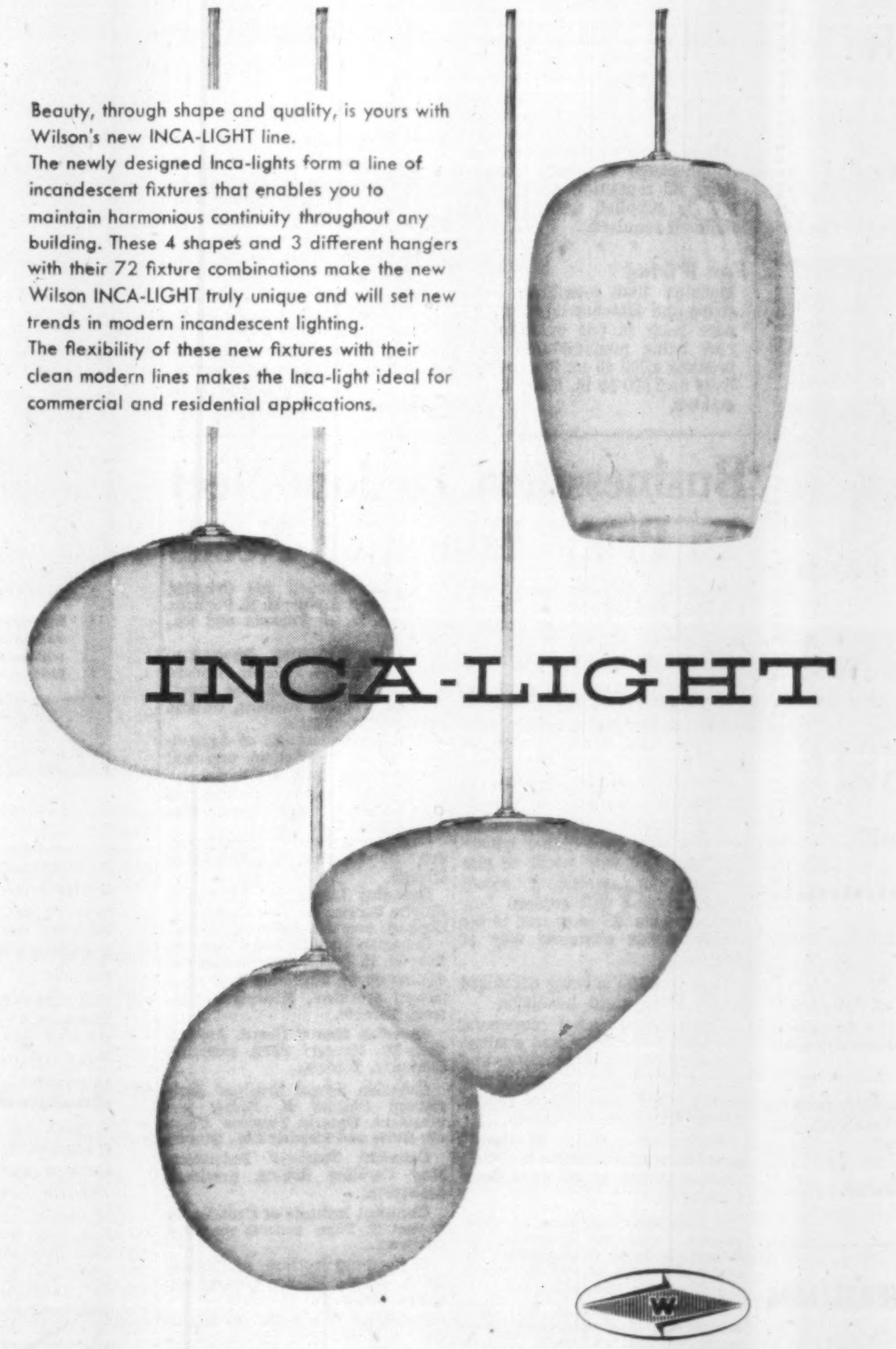

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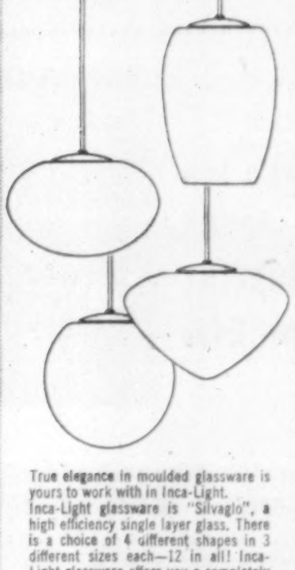

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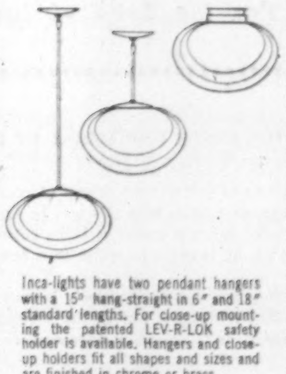

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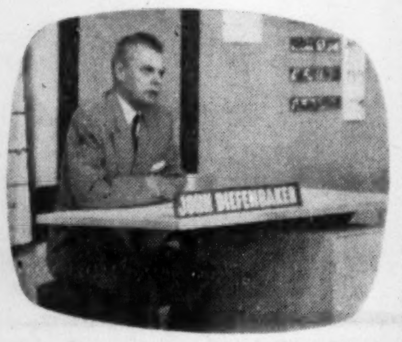
JOSEPH M. BELL TELLS

How to handle the kids on holidays

This writer says, "We travel with our kids—and like it. Here's how we do it—and you can too." It's just a matter of planning, patience, and psychology once you learn how children think on wheels." Read this informative article to learn how your children think on wheels.



ERIC HUTTON ASKS:

What will the new government and the new season bring to TV?

and from London BLAIR FRASER asks:

Will Diefenbaker revive the Commonwealth?

Here's how PUNCH MAGAZINE saw Eden

NOW READ HOW PUNCH'S EDITOR (MALCOLM MUGGERIDGE) DEFENDS BAD TASTE

"For the Sake of Argument"

JUST FOR THE SHEER ENJOYMENT OF IT . . .

Check this issue, and you will notice that Maclean's is not all "stimulating" reading. There are articles here that will be read simply for the pleasure of reading them. When a reader is being entertained, he tends to relax: when he relaxes, he is more receptive to a new idea.

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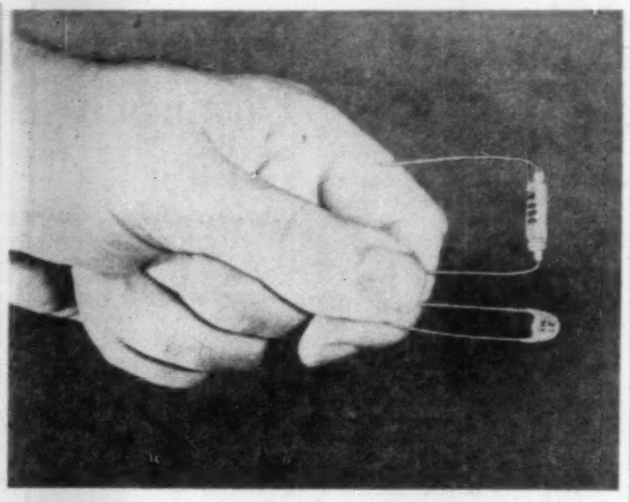

Tiny new capacitor for transistor circuitry is no bigger than a safety pin.

What's New

New products, new uses, new ideas, new money-makers. We report them here and invite your contributions. Write to 481 University Ave., Toronto.

Glass For Building

New kind of plate glass has been developed to eliminate glare caused by large areas of glass used in glass-clad building. It is claimed to have a low rate of light transmission, exclude nearly 60% of the total radiant energy, and not distort the color of light transmitted or the color of distant objects viewed through it. In appearance it is a warm, neutral grey. Manufacturer says it is only available in ¼ in. thickness with a maximum size of 75 in. by 128 in.

* * *

Low-Cost Stethoscope

Electronic stethoscope, costing about $11 to manufacture, has been developed in Japan. It is claimed to catch sounds up to a maximum of 800 cycles. Amplifier for the stethoscope is six inches long, little more than three wide.

* * *

Oil Change?

Motorists are now being offered a fluid for making a chemical analysis of the oil in a car. Priced at $1, it is claimed to indicate almost immediately if the oil needs changing. Made in the U.S.

* * *

For Cash

Gadget to fit on the sun visor of your car is designed to hold small coins — in readiness for toll charges, etc.

* * *

Power Saw

Portable power saw for cutting metal is being marketed in the U.K. It is claimed to be the smallest and cheapest available and to be valuable as a labor-saver on metal-cutting jobs of up to 2⅜ in. Designed to take any type of high speed blade up to a half-inch width, or broken lengths of more than six inches, it has a depth-gauge and length-gauge to ensure consistency on repetition work. The tool is supplied with 1/6 hp. motor if required.

* * *

For Wiring

Machine that measures, cuts, strips and attaches terminals to wire leads in one operation is now being manufactured. Can produce 4,000 45 in. lengths per hour or 2,000 90 in. lengths, say makers.

Another TV Control

Latest combination radio-TV-phonograph has a remote control that can adjust volume, switch on or off either radio, TV or phonograph, turn from one to the other, select TV channels or radio stations, reject records. This is done without wiring and at distances up to 40 ft. from the set, say makers. It uses ultrasonic waves (sound pitched above human hearing).

* * *

Water For Cattle

Features of new automatic water fountain for livestock include glass fibre trough, sealed radiant heating, pilot light for thermostat setting, spring-operated lid and a lay-out that prevents water syphoning back. It is claimed to supply fresh, cool, clean water in summer and ice-free water in winter to as many as 150 cattle and 250 hogs.

* * *

Paint Can

Design of new can for polyvinyl acetate and latex base paints includes complete enameling of inside surface so that paint is not in contact with steel, even on can's edge. Makers claim shelf life of paint is increased six to nine months through elimination of corrosion.

* * *

New Capacitor

A new micro-miniature disc capacitor has been designed to meet the small size, high capacitance demands of transistor circuitry needed in by-pass and coupling application. It is claimed by makers to excel all electrolytic-type capacitors of similar capacitance values because of extremely low power factor.

* * *

New Booklets

From Canadian Importers & Traders Assoc., 134 King St. E., Toronto 2, a digest of dumping duty regulations prepared by the association's legal counsel; from **Beatty Bros.**, Fergus, Ont., a book containing data on all types of masts and antennas; from **John Inglis Co.**, 14 Strachan Ave., Toronto, a booklet of the refrigeration systems available for ice rinks, with information on construction and costs involved.

Businessmen To Join Meet To Probe Education Needs

Delegates from business, government and education will attend a unique "Canadian Conference on Education" (**FP** June 15) next Feb. 17-20 in Ottawa.

Object: To focus attention on the objectives and needs of education in Canada over the next 10 years and to seek ways of meeting those needs. Five hundred delegates are expected to attend the talks.

The conference will concern itself not only with higher education, but also with needs of elementary and secondary school teaching; and will explore how education should be geared to the needs of our changing way of life.

The program is being organized under these eight headings:

Organization and curricula; teachers — quantity and quality; financing education; buildings and equipment; higher education; role of the home in education; special needs; education for leisure.

Following is a list of the 19 sponsoring organizations and their representatives on the Conference Committee:

Association Canadienne des Educateurs de Langue Francaise; Dr. Robert Gauthier, vice-president; director of French instruction, Ontario Department of Education.

Canadian Association for Adult Education; Miss Constance Hayward, citizenship branch, Department of Citizenship and Immigration.

Canadian Association of School Superintendents and Inspectors; R. H. Macklem, past president; inspector of schools, Barrie, Ont.

Canadian Chamber of Commerce; Lt.-Col. K. R. Swinton, General Manager, **Thomas A. Edison of Canada Ltd.**, Toronto.

Canadian Council for Crippled Children and Adults; H. H. Popham, president, H. H. Popham and Co., Ottawa.

Canadian Education Association; Dr. C. E. Phillips, member of board of directors; professor and supervisor of graduate students, Ontario College of Education.

Canadian Federation of Agriculture; Dr. H. H. Hannam, president and managing director, Ottawa.

Canadian Home and School and Parent-Teacher Federation; Miss Dora Baker, Truro, N.S.

Canadian Labour Congress; Gordon G. Cushing, vice-president, Ottawa.

Canadian Legion of the British Empire Service League; Capt. D. L. Burgess, president, Ottawa.

Canadian Manufacturers' Association; W. H. Evans, chairman special committee on education and manpower; president, **Honeywell Controls**, Toronto.

Canadian Mental Health Association; Dr. Margery King, executive secretary, Toronto.

Canadian School Trustees' Association; Charles H. Hulse, past president, Ontario Trustees' Council; **Hulse and Playfair Ltd.**, Ottawa.

Canadian Teachers' Federation; Miss Caroline Robins, president, Saskatoon.

Chemical Institute of Canada; Dr. Garnet T. Page, general manager, Ottawa.

Engineering Institute of Canada; Dr. L. Austin Wright, general secretary, Montreal.

Industrial Foundation on Education; A. R. Williams, member of the board of directors; assistant to the president, **A. V. Roe Canada**, Malton, Ontario.

National Conference of Canadian Universities; Dean M. St. A. Woodside, faculty of arts, University of Toronto.

National Council of Women; Mrs. M. F. Gregg, first vice-president, Fredericton and Ottawa.

MacNab's Portfolio

A Managed Investment Account

Invested in 1944 .... $10,000
Account latest valuation $38,455

Value Down 1% in Month

The value of MacNab's account declined by $390, or 1%, in the month ended July 15.

This was approximately the same as the decline shown in the industrial averages on the Toronto Stock Exchange in the same period.

No portfolio changes were made during the month.

Says the manager:

The valuation of your account at July 15 totals $38,455 compared with $38,845 on June 14, a loss of $390. The Toronto Stock Exchange industrial averages on these respective dates were 489.28 and 485.02, a decline of 4.26 points.

The market has been dull and featureless during the last month. The only important development affecting the account was the decline in earnings revealed by **Powell River** due to substantial loss in U.S. exchange. For the six months ending June 30, net earnings per share were $1.02 compared with $1.37 for the first half of 1956, despite production and sales of newsprint which reached new records.

Some recovery has taken place in pipeline stocks recently after the announcement of a U.S. Government anti-trust suit against **El Paso Natural Gas.** Apparently this will take some years of litigation and hearings before the Federal Power Commission before settlement. The purpose of this suit is to force El Paso to divest itself of its control of **Pacific Northwest Pipeline.**

A further weakness in base metals has occurred during the past month as a result of overproduction and lack of demand for these metals, particularly copper, lead and zinc.

The recent rumor of control of **Dominion Steel & Coal** by unknown interests has improved the market value of the $1,000 Convertible debenture which is held in the account. I have decided to hold this debenture pending further developments in this situation.

Your estimated annual income at current dividend rates is $1,579, giving you a current yield of 4.12% and a yield of 15.79% on the original valuation of $10,000 when I took over the management of your account on Dec. 15, 1944.

Investment income in the month ended July 15 amounted to $259. After the usual monthly withdrawal of $40 there remained a cash balance of $197.

Here is MacNab's portfolio at July 15:

No. of Shares		Cost per Share $	Price per Share $
	Common Stocks		
40	Abitibi	25.00	31⅛
50	B-A Oil	40.45	56
70	B. C. Power	35.79	51¼
70	B. C. Tele., ord.	35.86	42¼
25	Bank of Montreal	49.95	47
100	CPR	23.85	33¾
60	Cons. Mng. & S.	30.00	22¾
50	Dist. Corp.-Seag.	30.85	28⅛
55	Dom. Fdries. & Stl.	26.18	32½
20	Falconbridge N.	39.00	32
30	Internat. Utilities	21.50	69
20	Noranda Mines	34.44	49½
70	Powell River	31.13	44
30	Hiram W-G & W	51.50	76⅝
3	Do., units	phoned	
40	Howard Smith	21.75	32
50	Sicks' Breweries	28.50	20½
9	Trans-Can. P.L.		37¾
3	Do., units	150	146
100	A. V. Roe Can.	18.50	23⅝
	Preferred Stock		
40	Aluminum Co., 4½% 2nd pref.	51.25	44¾
	Convertible Corporate Bonds		
$1,000	CPR 3½%/66	100	96⅛
$1,000	Dom. Stl. & Coal 4%/61	100	129

Market value	38,257.25
Cash	197.26
Total value	38,454.51
Original amount invested	10,000.00
Capital gain	28,454.51
% Capital gain	284.55
Annual income	1,578.55
% Yield on original invest.	15.79
% Yield on market value	4.12

Imperial Oil Nets $1.19 In First Half

Imperial Oil Ltd. first half earnings were up over last year at $37,662,000, equal to $1.19 a share. This compares with $33,735,000 for first half of 1956, equal to $1.07 on the 31,441,563 shares now outstanding.

Company's business has continued its expansion during the first half of the year. Product sales at 279,015 bbl. daily were up 6.5%. Net daily production of crude oil increased by 6.1%, averaging 104,435 b/d. Crude runs of 279,947 b/d at the company's nine refineries were 13.7% more than in the corresponding period of last year.

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New IJC Chief Won't Pep Up Columbia Talks

Special Correspondence

WASHINGTON, D.C.—It will make no difference to the dragging Canada-U.S. talks on power development of the Columbia River now that former Interior Secretary Douglas McKay is U.S. Chairman of the International Joint Commission.

McKay, who had been trying to get a federal job since he was beaten by Wayne Morse in the Oregon Senatorial race last November, was named by President Eisenhower to the $20,000 a year job, replacing retiring Len Jordan.

McKay is a private power enthusiast and hence lukewarm to any expansion of public power facilities in the Pacific Northwest.

Although he has more senior government experience than his predecessor, McKay is not expected to change the U.S. tune on the Columbia and will follow pretty much the same line as Jordan.

McKay also becomes chairman of the U.S. side negotiating on the diplomatic level about the Columbia.

Senator Richard Neuberger, a long-time foe of McKay, calls the IJC appointment "incredible."

He feels the appointment demonstrates that the Eisenhower administration is dragging its feet on negotiations with Canada on the Columbia.

"On the record," Neuberger says, "I think we may be justified in the suspicion that the administration is just not trying. And the McKay appointment to the International Joint Commission goes far toward turning such a suspicion into certainty."

McKay, who was happy in his job as Interior Secretary in Washington, was convinced by President Eisenhower that he should go home to Oregon and run against Senator Wayne Morse, the man Eisenhower dislikes most in the U.S. Senate.

Morse, however, declined to go along with Mr. Eisenhower's ideas and soundly trounced McKay.

This left the one-time governor of Oregon out in the cold and to give him some warmth, Mr. Eisenhower named him to the IJC post.

Cat-and-Dog Squabble

When the Columbia River question is discussed in Washington it inevitably sinks down to a cat-and-dog squabble about private versus public power in the U.S.

Former IJC boss Jordan and McKay always have been favorite targets of the public power supporters who want high federal dams.

Jordan and McKay worked closely together when they were respectively governor of Idaho and Oregon.

The argument thrown at them and at the Eisenhower administration for naming them to the IJC, is that they are deliberately stalling the negotiations on the Columbia with Canada.

This is vigorously denied by the administration and private power sources.

Those who advocate public power say the Canada-U.S. Columbia talks are being deliberately stalled to encourage the rising demand for power in the power-hungry Pacific Northwest.

When the demand gets loud enough, so the argument goes, the Federal Power Commission which has before it applications for numerous power sites by private power interests, would then tell the private interests to go ahead and build all their low dams.

This, of course, would hamstring expansion of public power in the Northwest and the plans for high federal dams.

"What is obviously lacking," Senator Neuberger says, "is any real drive, any motive power within this administration, to make a concerted effort to reach early agreement, when the goal is the further development of the Federal power system of the Columbia Basin."

As a result of this public-versus-private power row in Washington, the basic issues involved between Canada and United States are usually overlooked.

The State Department, which tries to keep out of the domestic political squabbling on power, is concerned about the future of the Canada-U.S. talks.

There is a question in the mind of the State Department as to whether the new Canadian government will want to continue negotiations via the diplomatic level, or revert to the IJC.

Took Time Out

In the course of a recent denunciation of McKay's appointment on the floor of the Senate, Senator Neuberger took time out to look at the question of downstream benefits on the Columbia.

He noted this was a major bone of contention in the Canada-U.S. talks, but asked if Canada were paying the U.S. compensation on another western river.

"I also asked (the State Department)," he said, "in the light of Canadian demands for downstream benefits from future Canadian storage projects, what benefits we receive or have demanded from Canada for the improved flow at the Waneta Dam on the Pend Oreille River in British Columbia, as a result of the storage releases from the Hungry Horse Reservoir in Montana."

Neuberger said the State Department told him:

"No arrangements have been made for payments by the owners of the Waneta project in British Columbia for benefits received as a result of storing water upstream in the Hungry Horse Dam.

"There have been no diplomatic negotiations regarding this subject, and no requests for compensation have been made through the State Department."

Auto Production

	Wk. End. July 27	To date 1957	To date 1956
Am. Motors:			
Rambler	....	1,792	....
Total cars	....	1,792	*4,063
Chrysler:			
Chrysler	111	†3,398	5,009
Dodge	775	†27,286	34,761
Plymouth	634	†24,239	29,965
Total cars	1,520	†54,923	*71,133
Dodge	97	†2,568	4,219
Fargo	94	†2,544	3,758
Total trucks	191	†5,112	7,977
Cars, trucks	1,711	†60,035	79,110
Ford:			
Ford	1,311	39,728	49,391
Mercury	204	7,064	6,135
Meteor	766	20,854	23,034
Monarch	167	6,886	6,485
Total cars	2,448	74,532	85,045
Ford	334	11,649	13,578
Mercury	185	4,465	5,598
Meteor divy.	17	576	492
Total trucks	536	16,690	19,668
Cars, trucks	2,984	91,222	104,713
GM:			
Buick	75	10,646	12,923
Chevrolet	1,873	55,381	41,197
Oldsmobile	145	10,740	7,202
Pontiac	1,461	34,786	29,639
Total cars	3,554	111,553	90,961
Chevrolet	309	11,606	14,725
GMC	197	7,728	10,077
Pontiac divy.	16	560	938
Total trucks	522	19,894	25,790
Cars, trucks	4,076	131,447	116,751
International:			
Trucks	....	8,390	9,902
Stude.-Pack.:			
Stude. cars	179	4,094	5,953
All cars	7,701	246,894	257,155
All trucks	1,249	50,086	63,337
All vehicles	8,950	296,980	320,492
Prev. week	9,353	....	....
Last year	11,330	....	....

*Includes Nash and Hudson for American Motors and DeSoto for Chrysler.
†Revised.
Source: Canadian Automobile Chamber of Commerce.

Unicos $2.1 Million For United Lands

Unicos Property Corp., London, one of England's largest property companies, has acquired 77½% control of **United Lands Corp.**, Toronto.

United owns the Park Royal development between Toronto and Oakville, south of the Queen Elizabeth Way.

Unicos, making its first property investment in Canada, placed $2.1 million in the United Lands treasury for majority interest formerly held by "A" and "B" bondholders including several British trust companies, **McAlpine & Sons (Canada) Ltd.**, **United North Atlantic Securities**, and L. W. Finch, Toronto, who remains as managing director.

Unicos has been on the lookout for investment opportunity in Canada; United Lands required money to advance plans for the 900-acre Park Royal development.

Unicos directors J. Rubens, president, B. Shine and Dennis Collett have been added to United Lands board, along with Gordon Armstrong, Toronto.

Montreal Proposes Traffic Plan Costing $157 Million

MONTREAL (Staff) — Montreal's answer to its traffic problems calls for new expressways, tunnels and bridges, which will speed connections to New York State and Laurentian playgrounds.

Traffic Director Jean Lacoste says the new plan will cost $157 million.

As to payment, Lacoste argues that of all the money levied in taxes in the Montreal area, Ottawa takes 75%, provincial government 15% and municipal 10%.

Therefore, he says, contributions should be on the same scale.

Thus Ottawa would pay 75% or $117.7 million, Quebec City 15% or $23.5 million, and the municipal government 10% or $15.7 million.

This will be the transport network 10 years from now if the new plan is accepted:

New Laurentian toll expressway, due to be completed by 1958, will stretch from a point just north of Rockland Ave. up to the Laurentian town of St. Jerome. There will be ramps to allow traffic to feed into the expressway.

By 1960 it is planned the vital metropolitan expressway will cross the island from east to west in a continuous 32 mile stretch, with 10 traveling lanes, six on the expressway proper with an added four lanes, two one each side, for local traffic.

Bridge Vital

The third vital factor in the project is the new multi-million dollar Nuns' Island bridge which is planned to bring traffic to Montreal from the New York State route.

City planners hope that it will be elevated over the Lachine Canal, up over Notre Dame St., continuing over St. James and St. Antoine Sts. and coming down to earth under the CPR's tracks south of Dorchester St., in central Montreal.

Plans also call for a tunnel through Montreal's mountain that would be 2½ miles long.

This tunnel would come out of the mountain at the north entrance of the present CNR railway tunnel.

From that point, the road would continue elevated over the CNR leased right-of-way to interchange with the metropolitan expressway and connect directly into the Laurentian expressway.

Montreal civic officials made this proposal last year and they feel it has been strengthened by a recent New York State announcement that the South Shore expressway from New York to Albany will be continued up to the border of Canada.

As the projected Nuns' Island bridge connects directly with this route, the new plan if put into operation, could offer continuous expressway facilities to traffic from Montreal and the Laurentian district to a point south as far as Washington, D.C.

This network of major expressways, added to a number of lesser roads and bridges also planned, could get Montreal's traffic moving and keep it that way, municipal planners argue.

In the Montreal area it would call for 35 miles of new expressways costing $4.5 million per mile.

N. B. Carpenters Strike is Over

From Our Own Correspondent

FREDERICTON — Fredericton district carpenters' month-old strike (**FP**, July 27) against 10 member-firms of Capital Builders' Exchange is settled. Some 900 carpenters returned to work.

Both union and the exchange have agreed on a new wage scale of $1.70 hr. until April 30, 1958; $1.75 from May 1, 1958, to Dec. 31, 1958; and $1.80 from Jan. 1, 1959, to Apr. 30, 1959.

This represents increases over the old $1.58 rate of 12c for the first nine months, 17c for the next eight months and 22c for the last four months of the contract.

Only gain from a conciliation board recommendation is the 5c hike for the last four months.

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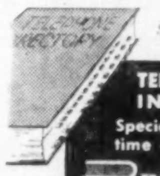

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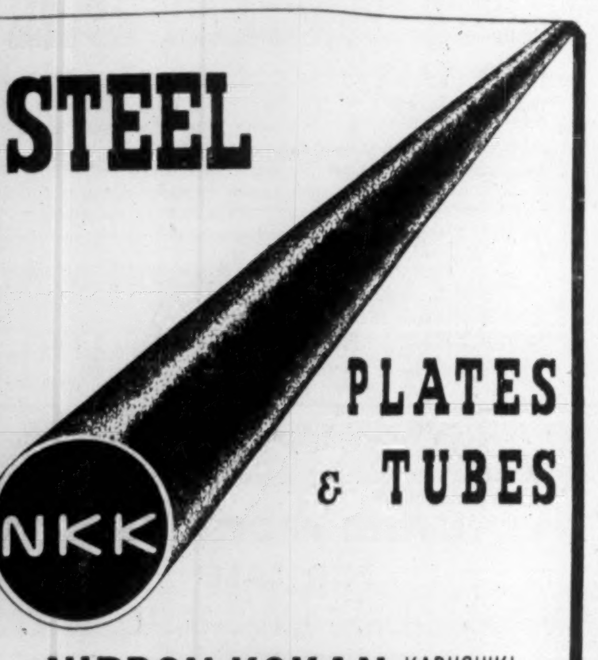

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The original engravings for this advertisement were made on magnesium

LAL LIGHT ALLOYS LIMITED
320 Bay Street, Toronto, Ontario

U.S. Oil Move Strengthens Our West Coast Position

"The U.S. move on oil imports is about as favorable to Canada as could be hoped for."

This reaction of a top Canadian oil marketing official to President Eisenhower's recent announcement on oil imports into U.S. pretty well echoes the feeling of the Canadian industry.

Although Canadian oil officials were pretty sure that in any import moves Washington would grant some special exemption to the whole West Coast area and Canadian oil, there was considerable relief when the actual announcement was made early this week.

The competitive position of Canadian oil on the West Coast isn't any different than it was before, however.

It still has to compete with unregulated imports from the Middle and Far East and Venezuela.

"But we derive a good deal of assurance from the fact that the president saw fit to specifically exempt Canadian oil from any import restrictions in his statement," another Canadian oil executive told FP this week.

This statement bolsters more than ever the belief that Washington is strongly opposed to restrictions of any kind against Canadian crude imports. In any future tightening move — seen highly possible — Canada can reasonably expect to again receive special treatment.

For Canadian oil here are the significant points in the recent import move:

—The U.S. West Coast area — where bulk of Canada's oil exports go — has finally been officially recognized by Washington as a special territorial shortage area.

—Canadian imports into the Great Lakes area are also exempted from the voluntary quota restrictions.

—Loath to take mandatory action against importers Washington has decided to give voluntary controls another try-out.

The special import treatment awarded the U.S. West Coast combined with the specific exemption of Canadian oil imports is seen an all-important precedent, influencing future marketing and refining plans in the area.

The move is seen further accelerating the trend for U.S. refinery companies to construct new refining facilities in Washington State close to the U.S. spur of the **Trans Mountain** oil pipeline.

There is a feeling that such U.S. refiners will be readier than ever now to tie themselves up as closely as possible to Canadian oil supply sources while at the same time retaining a certain amount of flexibility to handle seaborne crude when it's advantageous.

Right now three major U.S. oil companies — **Texas Co., Standard Oil of California** and **Richfield Oil Co.** — are planning new refineries close to Trans Mountain oil pipeline with a combined capacity of around 150,000 b/d.

The Texas Co. is now on the ground and plans to have its 40,000 b/d refinery in operation early in 1959.

Standard Oil of Cal. is scheduling its refinery completion for 1960. Richfield will complete its refinery later, probably in 1962.

At least one other major U.S. company — **Union Oil Co.** — is believed looking closely into plans for construction of a new West Coast refinery close to Canadian oil supplies.

Currently two U.S. refinery companies—**General Petroleums,** Ferndale, Wash. and **Shell Oil Co.,** Anacortes, Wash., are operating almost 100% on imported Canadian crude and importing a combined 90,000 b/d (August).

Since Canadian oil is not up against any other import competition in the U.S. Great Lakes area and since it is not seriously cutting into U.S. domestic markets, Washington had no particular problem in exempting Canadian imports from quota bans into this area.

This has been a relatively small and changeable market for Canadian crude ranging between 10,000 and 55,000 b/d (had dropped to 10,250 b/d for Aug.).

More Pressure

Although the Washington move has cleared the air considerably on the West Coast marketing front, pressure has been increasing within Canada for a move that might assure the attractive 200,000 b/d Montreal market for Western oil producers.

Independent producers in Alberta have been particularly active in urging the industry to go after the Montreal market now all served by imports, chiefly from Venezuela (Middle East and U.S. Gulf Coast have also been important suppliers).

S. P. King, general manager of **Merrill Petroleums Ltd.,** Calgary, has recently urged a stiff tariff against foreign crude oil entering Canada as a means of making Western Canada's crude competitive in Montreal.

Canadian crude must overcome a 10½c a bbl. tariff hurdle to get into the U.S.

A group of Western Canadian independent oil producers have sponsored a $30,000 market study for Canadian crude oil. **Walter J. Levy Inc.,** a firm of New York petroleum consultants, has been commissioned to handle the study.

In his long-awaited statement on import policy, President Eisenhower this week asked U.S. oil companies voluntarily to cut imports of foreign crude by 10% under threat of possible mandatory controls.

The Cabinet committee who made the recommendation to the president asked that established importing companies, other than on the west coast, be requested to cut back 10% below their average crude oil imports for the years 1954, 1955 and 1956.

More recent importers were asked to make varied reductions. The reduced imports would be effective for a year starting July 1.

In its recommended policy, the cabinet committee had warned that increasing oil imports threatened to impair the U.S. national security by discouraging domestic oil production and exploration.

Trans Mountain Earns $3.74 In First Half

Estimated net profit of **Trans Mountain Oil Pipe Line Co.** for the first half of 1957 amounted to $5,629,000 or $3.74 a share. Earnings in same period last year were $2,608,000 equal to $1.74 a share.

The system delivered an average of 183,316 b/d for the six-month period compared with only 109,436 b/d for same period last year. There was a heavy demand for offshore movement of oil during the period following the Suez crisis. This increase lasted until almost the end of the second quarter, when the Suez canal reopened.

The 1957 construction program including two 50-mile loops and essential stations approaches completion. This will bring system's designed capacity to 240,000 b/d. Sustainable capacity is calculated at 85% of designed capacity.

Construction will commence shortly at the Westridge Marine Terminal of a new oil loading dock to accommodate tankers up to 60,000 tons.

Peace Bridge Area Appoints R. B. Potts Industrial Head

ROBERT B. POTTS

Robert B. Potts has been appointed industrial commissioner of the Peace Bridge Area Industrial Commission.

For the past five years he has been industrial consultant in the trade and industry branch, Ontario Department of Planning and Development.

The Peace Bridge Area contains some 70 sq. miles of land and has some 30 miles of shore line on Lake Erie and the Niagara River. It includes all of Bertie Township in Welland County, the town of Fort Erie and the village of Crystal Beach.

It is the most southerly portion of Canada to be organized as an industrial area.

Here are Half Year Figures Canadian Pulp, Paper Output

MONTREAL (Staff) — While Canadian wood pulp production for the first six months of 1957 at 5,296,962 tons showed a fractional increase over the corresponding period last year, production of paperboard at 435,273 tons was off 3% and wrapping paper production at 134,502 tons, 8.1%.

During the first half, woodpulp output included 2,389,936 tons of chemical pulp (2,385,991 tons in the first half of 1956) and 2,865,558 (2,815,585) tons of mechanical pulp.

Canadian pulp consumption in the first half at just over 4.1 million tons was up 2.2%. June consumption at 670,086 tons compares with 678,724 tons consumed in June of last year.

Pulp exports, however at 1,130,974 tons for the first half were off 4.6% and June exports, 17.6%.

Paperboard production in the first six months of this year comprised 234,405 tons of container grades, up 0.7% from last previous half-year, and 200,868 tons of boxboard grades, down 7%.

Wrapping paper production including bag and other converting papers in the first half declined 8.1% to 134,502 tons. Exports were off slightly more (8.4%) at 7,697 tons.

Wrapping paper consumed in Canada during the first six months of this year totaled 122,149 tons, off 9.5%.

Forest Fire Losses Cut

OTTAWA (Staff) — Much less than the usual amount of Canadian forest will go up in smoke this year.

Reasons: Early wet weather, new fire-fighting methods (i.e. chemicals), and the still-not-enough-but-helpful trend to carefulness on the part of woods-travelling workers and tourists.

To mid-July, according to latest National Resources Department figures, just over 200,000 acres of forest have been burned by about 3,000 fires.

Average annual loss in the last 10 years during the April-October danger period has been about 1.4 million acres. An acre may produce about $10,000 worth of lumber.

Worst years since 1936 were 1937 and 1941 when 4.3 million acres burned. Best year was 1954 when 300,000 acres burned.

Federal experts estimate that about 80% of the 5,000 or more fires started each year are begun by human beings, and about 90% of these through carelessness.

Pacific Pete, Merrill Pete Merger Deal

Pacific Petroleums Ltd. — fast-moving Alberta gas and oil firm —has taken another giant forward stride in its rapid expansion pace.

A merger offer to **Merrill Petroleums** — strongly established Pembina oil producer—has now been approved by the Merrill board of directors.

The offer provides for the amalgamation of the two companies on the basis of one share of Pacific Pete stock for two shares of Merrill. (In late June Pacific Pete shareholders approved an increase in authorized capital to 20 million shares, $1 par from the former 10 million shares.)

The amalgamation is seen boosting growth potential of both companies.

To Pacific Pete it will bring a strongly entrenched oil producer with an attractive balance sheet position and healthy current earnings trend.

To Merrill it will bring a much more diversified investment, an entrance into the gas marketing and pipeline picture through Pacific Pete's 20% interest in **Westcoast Transmission Co.** and its extensive gas land holdings.

Merrill has varying interest in 81,688 gross acres in Alberta producing fields including producing wells in Pembina and the Leduc oilfields.

At end of 1956 company had a working interest in 716 producing wells and a royalty interest in 379 producing oil wells.

During 1956 daily oil production averaged 6,087 bbl., an increase of 213% over previous year.

Earnings amounted to $2,645,271 equal to 91c a share. The rate is running moderately higher this year.

As well as its heavy interest in gas wells and gas pipelines Pacific Pete has interests in a total of 7.5 million acres of exploration land in Western Canada and 175,000 acres in Venezuela.

Company's most promising oil holdings include 67 wells in the Redwater field as well as outstanding natural gas reserves in the Peace River area.

Company moved into the profitable operating category in 1956 with earnings of $644,709.

The amalgamation move has been a well-kept secret. When first hints were heard last week it caused some buying action in Merrill stock which spinned the price up $3 a share to around a peak of $17⅛.

It fell back early this week to $15½-$15¾ level. Pacific Pete was also lower early this week at $32½-$32¾.

Bank Staff Changes

Nova Scotia:

C. A. LUMSDEN, an assistant supervisor, general office, to be assistant supervisor, premises.

J. G. BEDARD, to be manager, Portneuf, Que.

D. A. COLE, an assistant accountant, Ottawa, to be accountant, Smiths Falls, Ont.

V. E. FAWCETT, assistant accountant, Summerside, P.E.I., to be accountant, St. George St., Moncton, N.B.

A. BOUTET, to be assistant accountant, Quebec, Que.

D. G. FRIARS, to be an assistant accountant, New York, N.Y.

W'peg Ready For Gas Changeover

From Our Own Correspondent

WINNIPEG — In expectation that natural gas will reach Winnipeg possibly by mid-September the **Winnipeg & Central Gas Co.** has given notice to its 14,000 customers that it will start adjustment of heating systems on July 29.

The work to be done in two stages will be carried out without cost to the users of gas.

The first step is simply the adjusting of burner parts to the required size for use of natural gas.

In some cases small burner parts may have to be replaced and air shutters adjusted so that present gas appliances may function smoothly until the pipeline product is deliverable.

The second step will be the process of introducing natural gas into the distribution system.

Customers will receive notices a day or two before this is done by mail and in newspaper advertisements.

In the meantime a decision is still pending on the company's application to the public utility board for approval of a schedule of rates.

The board has engaged a consultant from Chicago to examine the company's figures.

A brief has been submitted by the Winnipeg Chamber of Commerce which suggests the proposed charges may be high but admits information is lacking on which to base a definite opinion.

Under these circumstances it asks the board to carefully examine the rates and make certain what should be a fair and reasonable charge to the public.

A brief is likely to come from the City of Winnipeg. All submissions are to be filed by Aug. 2 and there will be a public hearing Aug. 8. The board's decision is expected well ahead of the time natural gas reaches the city.

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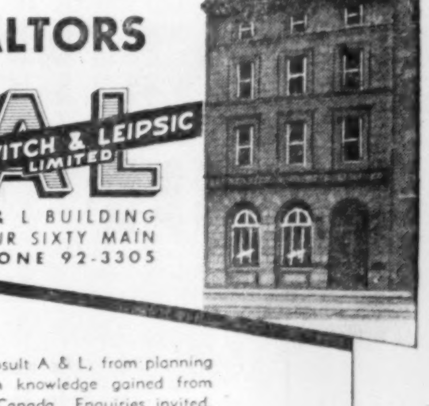

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ANNOUNCING

important appointments in Canadian Industry, Finance, Business and Government

Alberta Gas Trunk Line Co. (Calgary)—James C. Mahaffy, secretary-treasurer, to be general manager; relinquishes connection with legal firm Mahaffy, Howard, Moore, Dixon and Mackie; succeeds W. F. Knode, recently retired.

American Motors (Canada) Ltd. (Toronto)—Leo E. Fenn to be vice-president, American Motors Sales of Canada Ltd.

Ardee Aluminum Ltd. (Port Hope, Ont.)—new name adopted by Alfab (Canada) Ltd., to avoid confusion with a company of similar name, operating in Canada. Ardee Aluminum Ltd., closed for summer months, plans to resume production in early September.

Breithaupt Leather Co. (Kitchener)—C. E. Milhausen, director, replacing H. C. Breithaupt.

British American Oil Co. (Toronto)—W. R. Sinclair, counsel for production and pipe line department, succeeding G. M. D. Blackstock, now general counsel for the company.

B.C. Power Commission (Victoria)—James M. Bogyo, public information officer.

Canada Bread Co. (Toronto) — L. F. Enright, vice-president finance; W. G. McAdam, vice-president sales; both continue as assistant general managers.

Canadian National Railways (Montreal)—John W. Demcoe, general superintendent newly - created Maritime district headquarters, Moncton; Ernest J. Cooke, manager and general superintendent, Newfoundland district, headquarters, St. John's, Nfld.

Canadian Pacific Express Co. (Toronto)—G. E. Grant, comptroller Toronto, following retirement of W. J. Hallarn, vice-pres. and comptroller.

Canadian Refractories Ltd. (Montreal) — Dr. G. R. Rigby, formerly with British Ceramic Research Association, holder of lecturship in Ceramics, Royal College of Science & Technology, Glasgow, etc., to be director of research.

Carling Breweries Ltd. (Toronto)—W. T. Ingham, director, and also director, Carling Breweries (Quebec) Ltd.; continues as general sales manager, for both Carling and Brading divisions of Carling Breweries Ltd.

Clevite Ltd. (St. Thomas, Ont.)—William H. Martin, president, succeeding W. D. Prescott, appointed to central management staff, Clevite Corp. Cleveland, Ohio.

Consolidated Press Ltd. (Toronto)—Robert Marjoribanks, editor of Saturday Night.

Dahl Brothers (Canada) Ltd. (Toronto—Trygve Husebye, general manager.

Design Service Co. of New York Inc. (Toronto)—Victor Murgaski, assistant to the president and field engineer.

Dunham-Bush (Canada) Ltd. (Toronto)—M. K. McLachlan, sales manager heating; A. L. Glover, sales manager, cooling.

Eastern Trust Co. (Halifax)—J. G. Chalmers, director Bathurst Power & Paper Co., of Atlantic Provinces Economic Council etc., to be member avisory committee at Moncton; H. K. Mosher, real estate officer, Halifax, replacing Harold G. Stevens, who retires, but continues in consulting capacity.

Empire Life Insurance Co. (Kingston, Ont.)—H. A. Kellerman, representative at Toronto North branch, Toronto.

Field Aviation Co. (Oshawa, Ont.) Robert Quigley, western aircraft sales manager, with headquarters, Calgary.

JAMES C. MAHAFFY

secretary - treasurer of Alberta Gas Trunk Line Co., Calgary, has been appointed general manager; relinquishes partnership with legal firm Mahaffy, Howard, Moore, Dixon and Mackie, and his practice of law.

Hartt Boot and Shoe Co. (Fredericton)—J. W. Reid, vice-pres., to be president, succeeding the late John A. Reid; W. J. Ranahan of Montreal, sales and advertising manager to be vice-pres.; Anthony H. Marston, Toronto, to be director.

Industrial Life Insurance Co. (Quebec, Que.)—John L. Cox, manager public relations and advertising, will also be responsible for sales promotion, employee relations and convention activities.

International Equipment Co. (Montreal) — Napanee Iron Works Division, J. H. Miller, general manager; W. Naves, engineer; A. Jones, comptroller.

Kimberly-Clark Corp. of Canada Ltd. (Toronto)—Guy M. Minard, manager of mills for operations in Canada and Gordon G. Cosens, manager woodland operations, to be vice-presidents.

Molson's Brewery Ltd. (Montreal)—Maurice Gagnon to be director of production.

Montreal Trust Co. (Montreal) — Col. C. Warren Ball, manager for Europe, headquarters London, Eng.

Provincial Electricity Board of Quebec (Montreal) — Maurice Messier, controller.

Salada-Shirriff-Horsey Ltd. (Toronto)—A. R. Wilson, formerly vice-president eastern operations, Salada Tea Co. of Canada, to be vice-president of the company and general manager Salada Division.

Scripto of Canada Ltd. (Toronto)—D. R. Berry, vice-president to be president.

Stanford Research Institute (Menlo Park, California) — H. Gordon Pearce joins staff as petroleum economist, serving Institute clients in Western Canada.

State Farm Agency (Ontario) Ltd. (Richmond Hill, Ont.)—R. H. Fisher and E. C. Faulkner, agency supervisors; J. V. Barton, Toronto, Bayview, W. Brittain, Niagara, R. T. Johnson, Oakville, J. D. McCarville, Scarborough, managers of areas noted and responsible for development of business for State Farm Mutual Automobile Insurance Co., State Farm Life Insurance Co. and State Farm Fire and Casualty Co., in their areas.

Horace N. Stovin & Co. (Toronto)—radio and television station representatives — James W. Pearce, joins Toronto television time sales staff.

Sun Oil Co. (Toronto) — A. M. Balfour to be regional landman, Calgary; G. A. Raymond to be district landman, Regina; R. D. Jones to be Southern Alberta district landman; V. E. Trudel succeeds Mr. Jones as assistant to district landman in Regina; W. H. Tisdall of Calgary office, now is district geologist in charge Northeastern B.C., Northwestern Alberta and the Foothills of Alberta. John B. Morrow Jr., operating out of Philadelphia, to succeed Dr. Archie B. Hoel, retired as special technical representative.

Tuckett Tobacco Co. (Hamilton)—P. R. Austin and C. W. Boswell vice-presidents; Mr. Boswell continues as secretary-treasurer.

University of Toronto (Toronto)—Dr. Murray G. Ross, executive assistant to President Sidney Smith, professor of social work for six years and one of four Canadians chosen to take part in international conference on North Atlantic Community to be held in Belgium in September, by the University of Pennsylvania and the College of Europe, Bruges, to be vice-president.

Westeel Products Ltd. (Winnipeg)—B. H. Reiger, president Anglo-American Paper Co. etc.; to be director succeeding L. L. Long, resigned.

Workmen's Compensation Board New Brunswick, (Saint John)—H. O. McLellan, chairman, succeeding Col. W. A. McDougall, retiring Dec. 31.

Vickers & Benson Ltd. (Montreal)—R. W. Murdock, a vice-president.

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CPR Earnings Show Increase

MONTREAL (Staff) — Net earnings of **CPR** rose by $451,089 in June compared with the same month last year.

Revenue was $44.3 million and expenses $39.4. Last year June revenue stood at $43.7 million and expenses at $39.1 million.

Last January's rail strike is still reflected in the first half figures where earnings were down $325,296 from the year before.

	1957 $	1956 $	Increase $
Month of June			
Railwy rev. ..	44,343,037	43,679,906	663,132
Railwy exp. .	39,409,143	39,197,100	212,043
Net earnings .	4,933,894	4,482,805	451,089
Six Months Ended June 30			
Rlwy. rev.	239,527,926	242,874,499	*3,346,573
Rlwy exp.	224,382,846	227,404,123	*3,021,277
Net earns.	15,145,080	15,470,376	*325,296

*Decrease.

International Pete. Earnings Soar 32%

International Petroleum Co., Toronto, estimates consolidated net earnings for the quarter ended June 30 rose to $12.1 million (U. S.), a 31.5% increase over like period last year, equal to 83c (63c year ago) per share.

Net profit for the half year ended June 30 is estimated to have risen 25.9% to $23.3 million, equal to $1.60 ($1.27) per share.

Capital and exploration expenditures totaled $45.9 million ($23.3 million). Expenditures include acquisition of one half of the Lobitos concession in Peru.

Gross crude oil production averaged 135,500 bbl., a 14% increase. Average daily production in Venezuela was 102,700 bbl. and 32,500 bbl. in Peru.

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TRAFFIC MANAGER. Traffic man with 8 years experience, LaSalle University course desires position in industry with challenge and future. Excellent references, presently employed, age 36, married, will relocate. Box 17, The Financial Post, Toronto.

FINANCIAL EXECUTIVE AVAILABLE September 1. Chartered Accountant, age 38. Experience includes eleven years with large international firm of chartered accountants and four years as secretary-treasurer of medium sized manufacturing company. Box 20, The Financial Post, Toronto.

GRADUATE MECHANICAL ENGINEER, age 32, married. Has experience in management and construction including estimating. Desires employment anywhere in Canada. Interested in working for oil company and sales representation. Available after Sept. 15. Box 36, The Financial Post, Toronto.

EXECUTIVE 20 YEARS' experience English Travel Agency seeks position with Industrial company as Travel Manager or similar near Brantford. Box 31, The Financial Post, Toronto.

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with Bachelor of Commerce Degree, age 30, requires a position.

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This position offers excellent opportunities for advancement to the successful applicant.

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Candidates should have a good general background and knowledge of the work of a comptroller in a medium-size company and be capable of supervising a small accounting staff and co-ordinating the accounting work with plant requirements.

The appointment is one of responsibility; it has good potential for advancement to the executive management level; and offers an interesting opportunity for an accountant who is qualified to take charge of the accounting and administrative work of a company in the capacity of its senior financial officer.

Replies, which should provide full information and possibly a photograph, and will be treated strictly in professional confidence, should be addressed to **Price Waterhouse & Co.**, Canada Cement Building, Phillips Square, Montreal, P.Q., in envelopes marked "Halifax Comptroller".

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Replies in writing should state age, education, experience and present salary and be addressed to:

J. D. Woods & Gordon Limited
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The man required will have had a few years experience as an assistant to a plant engineer if he has not had full responsibility himself. An engineering degree is not essential but would be preferable.

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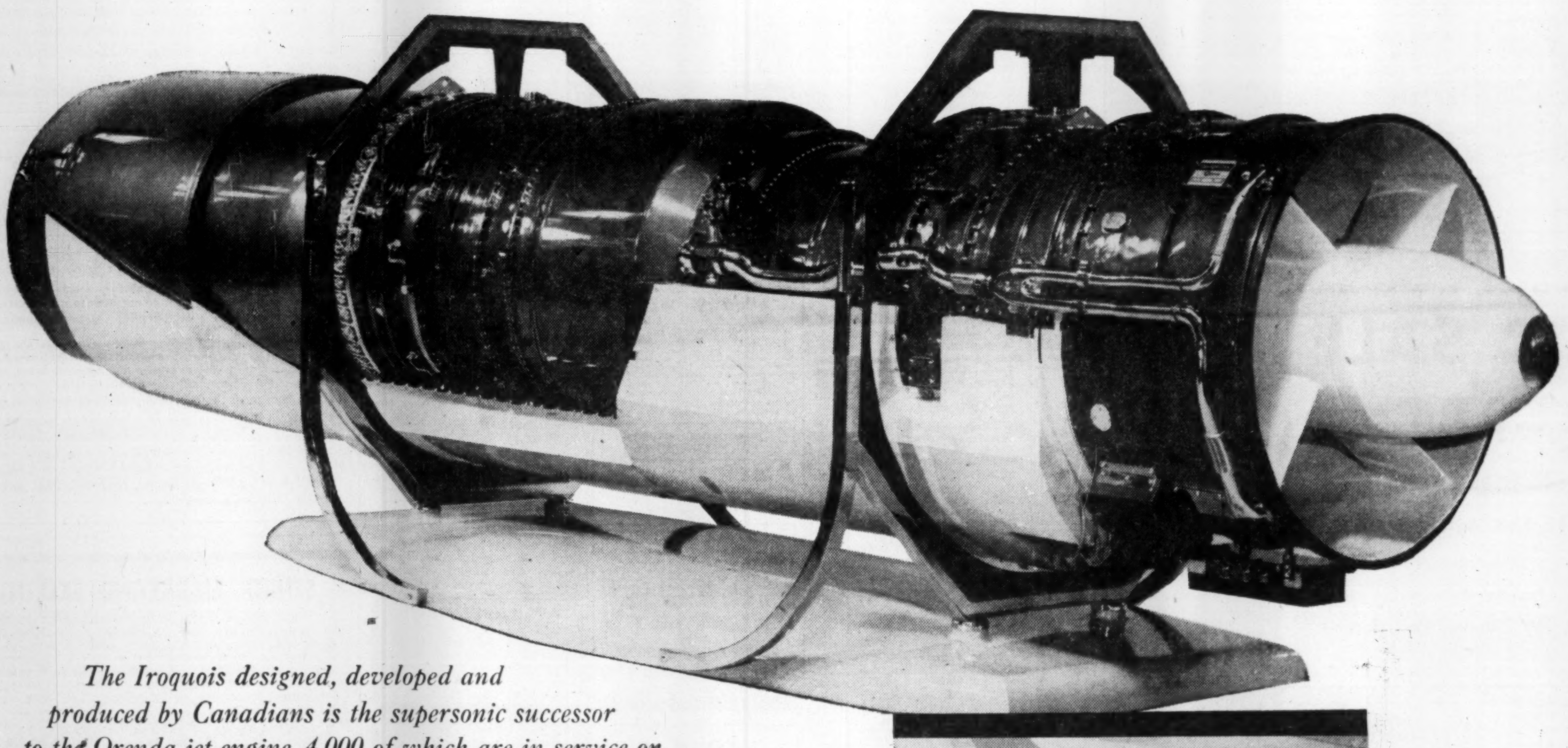
The first public viewing of the Iroquois took place Monday, July 22, at Malton, Ontario with the Minister of National Defence, the Hon. G. R. Pearkes, V.C., C.B., D.S.O., M.C., officiating.

Selected to power production versions of the Avro Arrow for the R.C.A.F. the Iroquois is a jet engine of very advanced design, developing maximum thrust with minimum dimensions in a simple mechanical layout. Using modern materials including titanium, Orenda has developed an engine of very low weight and high thrust.

Flight testing of the Iroquois is under way in a specially adapted B-47 six-jet bomber at Malton.



The Iroquois designed, developed and produced by Canadians is the supersonic successor to the Orenda jet engine, 4,000 of which are in service on four continents. Orenda gratefully acknowledges the support given by its 2,100 sub-contractors and suppliers.

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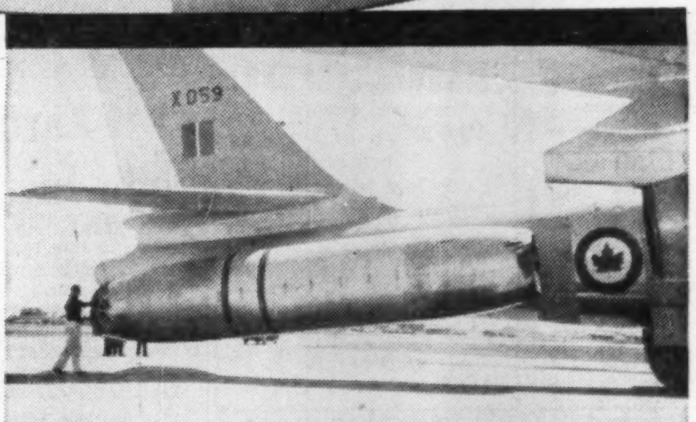

FLIGHT TESTING THE NEW IROQUOIS AT MALTON
The supersonic Iroquois is carried in this specially designed pod at the rear of the B-47.

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The Outlook: Last Half of '57

With a record of steady gains chalked up in the first half of 1957, business planners are taking a mid-year look at what is likely in the last half. What are the trends?

Here FP presents an industry-by-industry picture of what executives in Canada's leading firms expect for their own companies.

Outlook → Over-all, the outlook is bright. Almost three out of every five executives predict sales in the last half of this year will range from 3% to more than 10% higher than last half 1956.

Costs → However, the cost of doing business is going up. Most firms expect to pay higher wages and more for materials.

Prices → For many buyers of industry's output, this means higher prices.

Profits → Opinion on after-tax profits is fairly evenly divided. It's expected that earnings will be higher in about one-third of the companies, steady in another third and lower for the remainder in the second half of the year vs. same months last year.

Increases → Growth in the last half is expected to be, by and large, on a somewhat more modest scale than was predicted for the whole of 1957 late last year.

Progress → But by any man's measure, the progress likely in the second half is substantial, and forecasts of sales trends in 1958 show a buoyant spirit in most of Canada's key companies.

Check List of the Trends

	UP		About	DOWN	
	10%	More than 3%-10%	the Same	3%-10%	More than 10%
Sales (in dollars)	18	38	26	9	6
Prices	2	39	48	6	3
Costs (materials)	4	57	31	4	..
Employment	5	21	52	15	5
Wages rates	2	86	12	..	..
Net profit after taxes	14	19	31	14	16
Capital expenditures	22	12	31	6	23

(All lines do not add up to 100% because percentage of executives making no estimate is not shown.)

Iron & Steel

"Last-half sales will be about the same as in the corresponding period last year"

Six months ago, forecasters for both primary producers and fabricators of iron and steel products were unanimous in predicting this year's sales and this year's after-tax profits would be at least as high as in 1956 or considerably higher.

At mid-year, opinions are more mixed and somewhat less bullish.

Currently, executives in 36% of the firms think last-half sales will be about the same as in the corresponding period last year.

About 10% think sales will be up 3%-10%; 14% are looking for a more-than-10% boost.

Predicting that their sales will be down more than 10% are 13% of the firms; down 3%-10% are 27% of the makers of iron and steel products.

Forecasting for all of 1957 six months ago, 50% of all executives thought after-tax profits would be 3%-10% higher than in 1956; 25% looked for gains of more than 10%; remaining 25% thought profits would be about the same.

At mid-year, comparing expectations for the last half of this year with the record of the last six months in 1956, 14% of all company officials predict 3%-10% profit increases; another 14% look for more-than-10% increases; 26% think they will just hold the line.

Some 23% expect last-half profits to be down more than 10% while the same proportion think the drop in their own cases will be 3%-10%.

Primary producers and makers of iron and steel products expect to pay more for the materials they use, compared to prices in the last half of 1956.

Only 9% of the companies expect the prices of materials they buy to remain about the same. Some 73% expect increases ranging from 3% to 10%; remainder think they will have to pay at least 10% more.

At the same time, most of their customers will be paying more than was the case a year ago: 73% of iron and steel firms say their prices this fall will be 3%-10% higher than last year.

Eighteen per cent expect their product prices to remain steady while 9% predict slightly lower prices.

By and large, capital expenditures in the last half of this year will be little greater than in the same months last year. Some 41% of companies in the industry expect to spend about the same on new capital projects.

Over 27% plan to spend at least 10% more while the remaining 31% will be spending less.

Reflecting this, short-term and long-term borrowing in the last half this year will likely be little changed in total, although this varies widely from company to company.

In the longer term: Some 5% of companies expect total 1958 sales will be more than 10% higher than 1957 sales; 27% look for 3%-10% increase; 14% for no change; 18% from decreases. Almost 36% did not make predictions.

What About '58?

After forecasting for FP the outlook over the last half of 1957, executives raised their sights and took a look at probable sales trends in 1958.

They forecast 1958 sales vs. 1957 sales:

Sales (dollar value)	Executives Predicting %
More than 10% higher	14
Up 3%-10%	39
About the same	14
Down 3%-10%	4
More than 10% lower	2
No estimate	27

Although over one-quarter of of all executives replying would not make predictions, more than one-half say sales will be higher than the total likely to be reached in 1957. Some 39% foresee a 3%-10% increase; 14% predict a more-than-10% rise.

If those who did not make estimates are excluded and you look at the answers of those who did make predictions, this is how opinion is divided: 18% expect a more-than-10% increase; 54% say sales will be up 3%-10% over 1957; 20% look for no change; 5% say down 3%-10%; 3% say down more than 10%.

Food

"Sharply improved sales and after-tax profits in the last six months"

Food producers expect sharply improved sales and after-tax profits in the last six months of this year as against the same period last year. This marks an upward revision of expectations since the beginning of the year.

Over 30% of all executives predict last-half sales will be up more than 10%; 54% expect a 3%-10% increase; the remainder think their sales will be about the same as in the last six months of 1956.

At the beginning of the year fewer expected increases of this order.

Almost two-thirds of all companies expect to pay higher prices for the materials they buy in the last six months of 1957.

Most of the price increases will be in the 3%-10% range. At the same time, there is almost unanimous opinion that wage rates will up 3%-10% and total wage bills only partially offset by more modest labor requirements.

To some extent, higher costs will be offset by higher prices for the industry's products. Over half of the companies think product prices in the last half will be steady, but 38% predict increases of 3%-10% and 8% think their products will be priced at least 10% higher than in the last half of 1956.

Over half expect after-tax profits will be at least 3% higher than a year ago. Over 23% of companies predicting higher profits say the increase will be greater than 10%. Some 15% think profits will be the same as last year.

Remainder look for smaller earnings. Drops centre largely in milling and sea food products.

Inventories in the industry are likely to remain fairly steady, executives think, although at a slightly higher level than expected six months ago.

Majority of company officials are predicting increased borrowing, both short- and long-term, whereas six months ago they expected borrowing in 1957 to be about the same as in 1956.

In the longer term: Sales in 1958 will be about 3%-10% higher than in 1957 say 40% of reporting companies. About 15% are looking for sales gains greater than 10%.

Some 23% expect 1958 sales to be about the same as those in 1957. Remainder did not make estimates.

Beverages

"Sales in the last half will be 3%-10% higher, say more than two-thirds"

Sales in the last half of this year will be 3%-10% higher than those in the same period last year, say officials in more than two-thirds of the companies manufacturing beverages. Remainder expect sales will be at least as good as a year earlier, even if not showing sharp increases.

These predictions are somewhat less optimistic than those made six months ago and covering the whole of 1957. At that time industry opinion unanimously predicted a 3%-10% sales increase.

With most companies' products selling at prices between 3% and 10% higher than in the last half of 1956 and with steady sales gains, industry leaders are looking for reasonable improvement in after-tax profits.

Two-thirds of the companies expect profit increases over the last half of 1956 ranging up to 10%, while about 17% are looking for an increase of more than 10%. Remaining 17% expect a 3%-10% dip in after-tax earnings.

Forecasts of after-tax profits drawn up six months ago for the whole of 1957 were more optimistic, reflecting the expectation of very sharply improved sales.

At that time no companies predicted profits lower than those earned in 1956. Currently it appears that the now-higher cost of materials is cutting into profit expectations to an important extent.

Over half of all beverage manufacturers expect to spend at least as much in the last half of this year on capital expansion as in the last half of 1956. Remainder will spend less, in some cases, substantially less.

On the whole, industry borrowing is likely to be smaller than in the last months of 1956.

In the longer term: By far the greatest part of the industry expects sales in the whole of 1958 to be 3%-10% higher than those likely to be made during the 12 months of 1957.

Construction

"Total value of products sold in the next six months will be . . . slightly lower than expected"

Higher wages, higher costs for materials and only relatively steady sales compared to a year ago are shaping the outlook in the building materials and construction industry.

Company officials expect wages in the last half of 1957 will be a pretty uniform 3%-10% above those in the comparable period last year. For 70% of the firms, the price of materials will be up 3%-10% while the remainder will find material prices either about the same or very slightly lower.

At the same time the total value of products sold by the construction industry in the next six months will be — although still higher than a year ago — slightly lower than expected six months ago. As a result, most predictions about after-tax profits are less optimistic than those made at the beginning of 1957.

More modest estimates are thought to reflect the decline in house building, in part.

Today, 71% of the companies reporting think second half after-tax earnings will be about the same as those in the last six months of 1956; 29% expect a more-than-10% drop.

Six months ago, forecasts for the full year showed: 8% looking for a 3%-10% profit increase; 61% expecting about the same as in 1956; 23% expecting profits would be down 3%-10%; only 8% down more than 10%.

Six months ago, almost all companies expected employment in the building materials and construction industry would be, if not the same as in 1956, between 3%-10% higher.

Today, only about half of the industry expects the number employed to be as large as last year. Remainder predict smaller numbers of workers will be required; in the case of some companies, substantially smaller.

In the longer term: About 15% of companies in the industry predict sales in the whole of 1958 will be 3%-10% higher than those likely to be made in 1957.

Fewer than one-third expect 1958 sales will just equal 1957 totals. Remainder would make no estimate.

Public Utilities

"Outside borrowing to finance expansion will be considerably greater"

Steadily increasing demand from industrial and domestic consumers for the services and products of public utilities is forecast by executives in these organizations.

Close to 67% predict a 3%-10% increase in the last six months of 1957 as against a year earlier. Over 33% expect that the demand for services and products will be up more than 10%.

This mid-year forecast is substantially the same as that made at the beginning of the year for 1957 as a whole, although at that time 47% of utilities executives expected sales would be over 10% higher and 53% looked for a 3%-10% increase.

About one-third of all executives report that they expect the prices of materials bought by their organizations in the last half of this year will be unchanged from the same months last year. Some two-thirds expect price increases of between 3% to 10%.

But, for the most part it is not thought that these increases will be passed along to the consumer. Only 7% of utility officials expect there will be 3%-10% price increases in products they sell; 93% vote for no change.

This appears to be the case even though four out of five executives report wages will be 3%-10% higher and numbers employed, on average, somewhat larger.

With expansion planned for hydroelectric power facilities and further construction scheduled for natural gas pipelines and distribution systems, capital expenditures are expected to increase sharply.

Over 54% of the firms reporting say they will spend at least 10% more than in the last half of 1956 and 7% expect capital spending will be 3%-10% higher. Remainder say their spending will be either the same as last fall or somewhat lower.

This marks an upward revision from expectations at the beginning of the year when 31% thought spending would be greater than 10%, 6% looked for a 3%-10% increase and the remaining 63% forecast the same as in 1956 or lower.

Outside borrowing to finance expansion will be considerably greater than in late 1956. Long-term borrowing will be up more than 10% say executives in 13% of the utilities, up 3%-10% say 7% and about the same according to 40%.

(Continued on page 20)

Prospect by Areas

Here is a breakdown by regions showing how polled Canadian businessmen compare the outlook for last half 1957 with the record in the second half of last year. Figures are percentages of executives reporting.

	UP: More than 10%	UP: 3%-10%	About same	DOWN: 3%-10%	DOWN: More than 10%	No Est.
DOMESTIC SALES:						
B. C.	..	35	29	18	12	6
Prairies	28	44	11	6	..	11
Ontario	14	42	30	12	2	..
Quebec	24	40	22	7	7	..
Atlantic Prov.	22	43	21	..	7	7
Canada	18	41	24	9	5	3
PRODUCT PRICES:						
B. C.	..	35	41	6	18	..
Prairies	..	28	66	6	..	..
Ontario	4	48	40	6	2	..
Quebec	..	40	47	7	2	4
Atlantic Prov.	..	29	71	..	..	..
Canada	1	40	49	6	3	1
MATERIALS' PRICES:						
B. C.	..	71	29	..	..	..
Prairies		44	39	6	..	11
Ontario	4	62	32	2	..	..
Quebec	4	49	36	4	..	7
Atlantic Prov.	7	71	22	..	..	..
Canada	3	58	33	3	..	3
EMPLOYMENT:						
B. C.	6	18	35	35	6	..
Prairies	11	17	44	17	11	..
Ontario	4	22	54	14	4	2
Quebec	4	24	58	9	3	2
Atlantic Prov.	7	22	57	7	7	..
Canada	6	22	52	14	5	1
WAGE RATES:						
B. C.	..	100	..	..	..	..
Prairies	..	72	28	..	..	..
Ontario	2	80	18	..	..	..
Quebec	2	87	11	..	..	..
Atlantic Prov.	..	79	21	..	..	..
Canada	2	83	15	..	..	..
NET PROFIT AFTER TAXES:						
B. C.	..	12	41	12	35	..
Prairies	28	10	39	17	6	..
Ontario	8	24	34	12	14	8
Quebec	13	29	20	16	11	11
Atlantic Prov.	7	14	29	29	14	7
Canada	11	22	31	15	14	7

	UP: More than 10%	UP: 3%-10%	About same	DOWN: 3%-10%	DOWN: More than 10%	No Est.
CAPITAL EXPENDS.:						
B. C.	12	12	35	12	23	6
Prairies	11	6	28	11	28	16
Ontario	18	16	30	8	26	2
Quebec	40	9	22	4	16	9
Atlantic Prov.	15	7	50	14	7	7
Canada	23	11	30	8	21	7
INVENTORIES — Raw Materials:						
B. C.	..	18	29	12	12	29
Prairies	..	17	28	..	11	44
Ontario	4	18	48	10	8	12
Quebec	11	22	36	2	4	25
Atlantic Prov.	7	14	36	7	7	29
Canada	6	19	38	5	8	24
Goods in Process:						
B. C.	6	..	35	6	12	41
Prairies	..	17	22	..	..	61
Ontario	2	16	48	8	8	18
Quebec	7	16	47	..	4	26
Atlantic Prov.	..	7	43	7	..	43
Canada	3	13	43	4	6	31
Finished Products:						
B. C.	12	6	35	12	12	23
Prairies	..	22	39	6	..	33
Ontario	8	16	48	10	8	10
Quebec	15	16	44	7	2	16
Atlantic Prov.	..	36	50	..	..	14
Canada	9	17	44	8	6	16
OUTSIDE BORROWING — Long Term:						
B. C.	6	6	35	..	6	47
Prairies	11	6	27	6	6	44
Ontario	..	2	32	14	6	46
Quebec	4	2	27	11	7	49
Atlantic Prov.	15	14	36	..	..	35
Canada	5	4	30	9	6	46
Short Term:						
B. C.	12	12	41	6	..	29
Prairies	22	17	33	..	11	17
Ontario	6	12	44	4	4	30
Quebec	13	7	22	13	7	38
Atlantic Prov.	21	7	36	7	..	29
Canada	13	10	34	5	7	31

Last-Half Outlook for '57

(CONTINUED FROM P. 19)

Short-term will also be up more than 10% in 27% of the companies. These expectations are in line with earlier forecasts.

Net profit after taxes will be up more than 10%, state 13% of the executives contacted; up 3%-10% in the case of 41% of the companies and about the same or somewhat lower in the rest. This represents a slight scaling-down of earlier predictions.

In the longer term: Demand for the products and services of utilities in 1958 will be over 10% higher than in 1957, according to 20% of executives; up 3%-10% say 53% and steady in the case of 7% of the companies. Remaining 20% preferred not to make an estimate.

Oil

"Higher sales in the last half of 1957 compared with last year"

Oil company executives, almost without exception predict higher sales in the last half of 1957 compared with the same months last year. At least half these officials expect sales increases to be more than 10%.

Their opinions are practically unchanged from estimates made six months ago and covering the whole of 1957.

Eight out of every 10 expect to pay from 3% to 10% more for materials they buy, the remaining two out of every ten say their material prices will be about the same.

Eight out of 10 think the price of their products to consumers will be about the same in coming six months as in the last six months of 1956, but the remaining two expect to be charging 3%-10% more.

Executive opinion about after-tax profits in the last half of this year is evenly divided. One third expect a more-than-10% gain; another third look for 3%-10% increase while the remaining third think earnings will be about the same.

Only significant change from 1957 estimates made at the beginning of the year: Fewer are looking for more-than-10% profit increases.

About half of all industry executives reporting expect their companies will be spending from 3% to 10% more on new capital projects than in the last half of 1956. This is somewhat greater spending than anticipated six months ago.

During the coming fall months, some 34% of oil firms expect to do at least 10% more short-term borrowing; 17% will undertake at least 10% more long-term borrowing.

In the longer term: Although about one-third of the executives preferred not to estimate 1958 sales vs. those in 1957, another third predicted the total would be up 3%-10%; remaining third thought increases would be more than 10%.

Merchandising

"Executives in merchandising firms are a little less bullish about sales"

Although the over-all outlook is still highly optimistic, executives in merchandising firms are less bullish about sales in the last half of this year than they were six months ago about sales in the whole of 1957.

Just as many expect their sales will be up over 10% but half as many are looking for a 3%-10% increase while twice as many expect sales to remain the same as a year earlier.

Six out of every ten now expect last-half sales to be at least 3% higher whereas at the beginning of the year between eight and nine out of every 10 looked for increases of this order.

Over half of all merchandising executives reporting predict unchanged prices both for materials they buy and for goods they sell. In each case, officials in the remaining companies stated they expected prices to rise slightly — or else would not make any estimates.

On the whole, these replies indicate that price increases have not affected merchandising in the last six months and will not over the next six months, as much as had been expected at the beginning of the year.

All but a very few executives say wages will be 3%-10% higher in the last half of this year as against a year earlier. But only about one in three thought employment requirements would increase.

This is consistent with estimates made six months ago for the full year 1957.

Profit estimates for the last half of 1957 show: 17% predicting a more-than-10% increase; another 17% looking for 3%-10% gain; 56% expecting no change; 10% expecting a 3%-10% drop.

This is relatively unchanged from first of year forecasts — except a few more firms are now expecting steady rather than slightly higher after-tax profits.

In the longer view: Although 33% of the industry would not estimate 1958 sales as against 1957 sales, 22% said they were looking for little change, 28% expected a 3%-10% gain; 6% a more than-10% increase. Only 11% thought sales might be down 3%-10%.

Pulp & Paper

"Export sales are expected to show more modest increases"

Pulp and paper sales both in Canada and abroad will be higher, on average, in the last six months of 1957 than in the same period last year.

But at mid-year, it appears the increases will not be as large as those predicted at the beginning of the year for all of 1957.

Currently, 50% of executives forecast total domestic sales will be about the same as in last half of 1956 (27% thought so at the beginning of the year); 25% say sales will be up 3%-10% (55%); 8% expect a more-than-10% boost (9%); 16% look for some decrease (none at the beginning of the year).

Export sales are also expected to show more modest increases than earlier predicted. For example, in firms exporting pulp and paper, almost 20% of executives think last half sales will be 3%-10% higher whereas at the beginning of the year 44% predicted export increases of that order.

Two-thirds of executives reporting expect to pay between 3% and 10% more for materials they buy; one-third expect no changes.

Half predict the prices of products they sell will run 3%-10% higher last half vs. last-half; remainder think customers will either pay no more than a year ago or even slightly less for a few lines.

Wage rates will be 3%-10% higher in the fall, according to 92% of executives; rest consider there will be no change.

This is how executives predict after-tax profits: 8% say up more than 10%; 17% look for a 3%-10% gain; 16% expect no change; 17% think there will be a 3%-10% drop; 42% say down more than 10%.

Six months ago when predicting profits for all of 1957 forecasters lined up this way: 22% said up 3%-10%; 56% said no change; 11% said down 3%-10%; 11% said down more than 10%.

As large-scale exporters, pulp and paper manufacturers are hard hit by the premium on the Canadian dollar. To an important degree this is behind the industry's shrinking profit margins.

Replies indicate that the pattern of capital spending varies widely from company to company. In the last half: 25% foresee a more-than-10% increase; 8% look for a 3%-10% rise; 33% think spending will be about the same as last fall; 25% predict a more-than-10% decline. Remainder did not make estimates.

In the longer term: 17% would not predict their 1958 sales as against those likely to be made in 1957 but 25% thought these might be up more than 10%; 42% estimated up 3%-10%; 17% thought there would be no change.

Textiles

"No cutbacks in employment are forecast"

More than half of all executives replying predict last half sales will be higher this year than in the same months of 1956. Over 9% expect the increase to be more than 10%; 45% look for 3%-10% boosts. Some 27% say sales will be down 3%-10%; 9% look for a more-than-10% decrease.

This is similar to forecasts made for 1957 at the beginning of the year, although increase expectations have been scaled down somewhat.

Over half of all executives reporting expect to pay more for the materials they buy, but only one-third think prices of the goods they sell will be higher.

In both cases, remainder expect to hold the price line, although a few think product sales prices may be down slightly.

Eight out of ten companies are budgeting for a 3%-10% wage increase over the last half of 1956; other two of every ten expect to hold the line.

No cutbacks in employment are forecast: just over half of the executives replying think there will be no change in the numbers employed; just under half look for increases mostly in the 3%-10% bracket.

After-tax profit expectations for the last half are less optimistic than full year estimates. Currently executives predict profit likelihoods in this way: 18% expect a more-than-10% increase; 9% say up 3%-10%; 27% look for no change; 18% say down 3%-10%; 9% say down more than 10%.

At the beginning of the year, 1957 estimates looked like this: 46% said more than 10%; 23% said up 3%-10%; 31% forecast no change.

There is likely to be little net change in capital investment in the industry as a whole during the last half of 1957. About one-third of executives predict some increase; another third look for no change; remaining third expect less spending on new projects.

Short-term borrowing is likely to be up in total: One-third say they will increase such borrowing by more than 10%; 18% look for a 3%-10% increase; remainder say no change or else would not make estimates.

In the longer view: 18% of executives say 1958 vs. 1957 sales will be up more than 10%; 45% look for a 3%-10% increase; remainder say no change or slightly down.

Miscellaneous

"In total, executives find the outlook for the next six months bright"

In total, chemical, drug, rubber, tobacco companies, mining firms, aircraft manufacturers and other companies in the miscellaneous category find the outlook for the next six months bright.

Some 43% look for a 3%-10% sales increase over totals in the last half of 1956; 13% expect a more than 10% increase; 35% think sales will be as good as a year ago and only 9% predict a decrease.

Most companies are expecting some increase in the price of goods they buy and to a lesser extent for the goods they sell. Almost all expect wage rates to rise 3%-10% with employment remaining, on average, relatively unchanged.

Estimates of last-half after-tax profits vary: 4% look for a more than 10% increase; 13% say up 3%-10%; 31% say no change; 9% expect profits down 3%-10%; 26% predict down more than 10%; remainder would not forecast.

More than half of chemical company executives replying expect sales in the last half will be up more than 10%; remainder forecast a 3%-10% increase.

All forecast wage rates will be 3%-10% higher. Half think material prices will be steady, half that they will rise 3%-10%.

Profit expectations vary widely with some companies looking for substantial gains, others expecting decreases.

Rubber companies expect sales to remain unchanged in the last half or rise 3%-10%. Prices of products bought and sold will be about the same, according to executives. Profits are also likely to remain about the same. Companies are unanimous in expecting 1958 sales to be 3%-10% higher than 1957 totals.

Mining company executives are divided about the domestic sales outlook: half look for a more-than-10% decline from levels in the last half of 1956; the other half think sales will be about the same.

Exports will be lower, according to 60% of the executives; higher according to 40%.

All mining companies reporting think wage rates will be up at least 3%-10%. Most predict price of materials they buy will rise, but price of goods they sell will decline, in some cases substantially.

Three of every five mining executives replying expect after-tax profits in the last half of this year will run more than 10% lower than a year earlier. Remainder look for no change from the last half of 1956.

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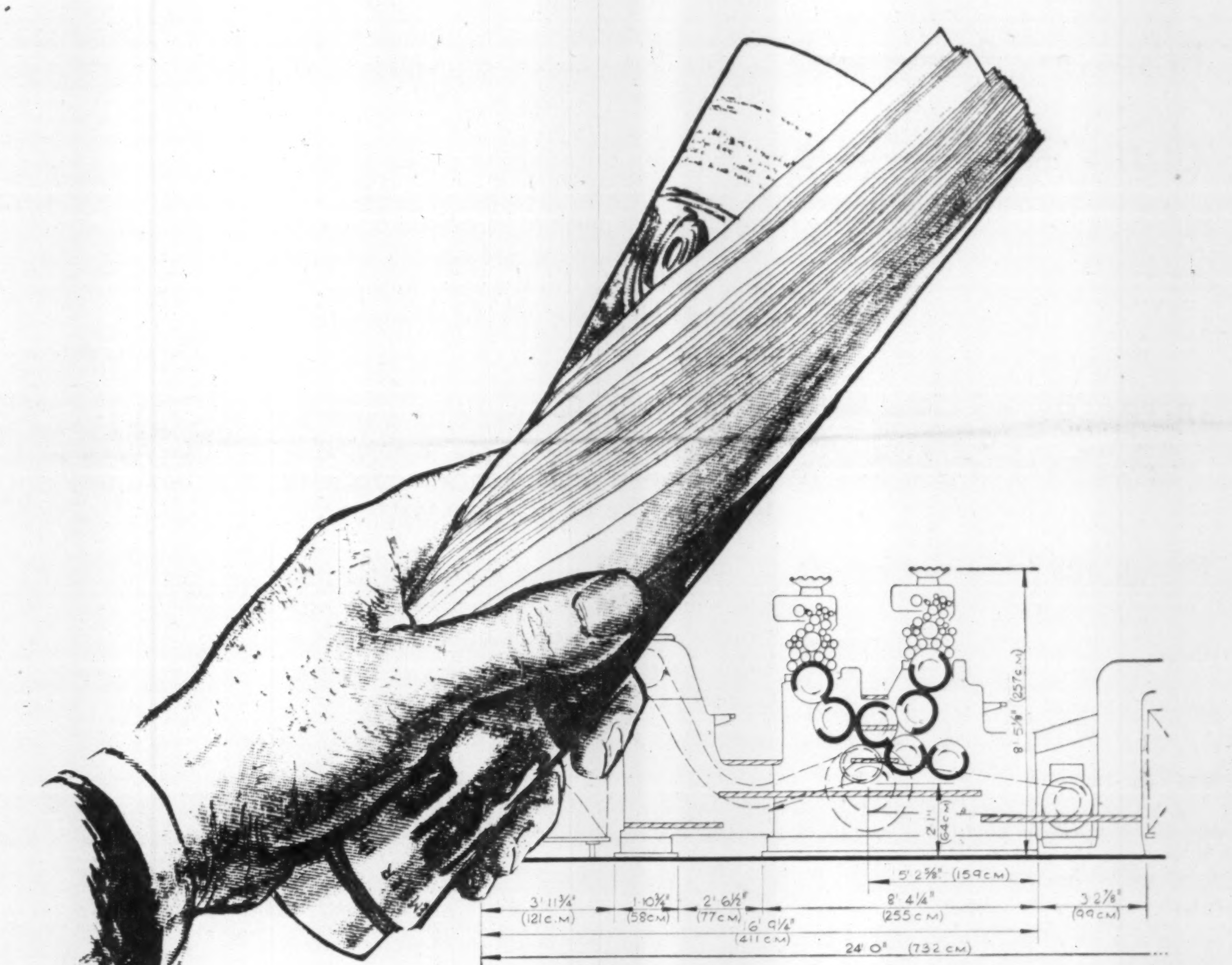

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More Pay Cheques Feel Inflation Bite

By DALTON ROBERTSON

Inflation is biting into the consumer's food and rent dollar.

What he could buy for $1 a year ago now costs between $1.03 and $1.04, according to the government's yardstick of consumer prices.

This means more and more wage and salary earners are feeling the pinch of rising prices — and feeling it despite pay increases.

Some people are beating inflation with incomes that rise faster than prices, but even their dollar gains are being whittled down by increasing living costs.

Others are just holding their own or are slipping behind in the wage-price chase.

Although varying widely from industry to industry, wages and salaries increased on average 6.4% in dollar terms between April last year and April this year.

But during this period, higher living costs ate away at dollar increases — leaving a real average gain of only 2.6%.

Hardest hit by rising prices are retired wage earners who live on pensions. With set dollar incomes, every increase in the cost of living marks another decline in their purchasing power.

Best off when prices are rising are workers in industries where wages are tied to the cost of living. But in other industries, especially those where white-collar workers predominate, wages tend to lag behind prices.

Inflation has been bred by the boom. Business, bent upon rapid expansion, has been bidding heavily for men, materials and money.

As a result of pressure on the supplies of all three, their prices have risen. Wages are higher, many material prices are up and interest rates have risen.

These increases have worked their way through the economy and helped push consumer living costs up. It's likely the cost of living will continue to rise as long as the current pace of business growth continues, say economists.

Inflation is hitting workers in some industries harder than in others. The pattern that has emerged can be seen in the accompanying table.

How Do Higher Costs Hit You?

Industry	Average weekly wages and salaries Apr. 1, 1957 $	Apr. 1, 1956 $	Change %	Change adjusted for cost-of-living increase %
Building trades	80.35	70.43	+14.1	+10.0
Primary iron & steel workers	88.61	80.99	+9.4	+5.5
Clothing factory workers	45.88	42.52	+7.9	+4.1
Oil, gas workers	96.33	89.39	+7.8	+3.9
Railway workers	71.82	67.05	+7.1	+3.3
Electric utility employees	79.96	74.82	+6.9	+3.1
Pulp, paper mill workers	88.80	83.49	+6.4	+2.6
Wholesale business employees	68.61	64.65	+6.1	+2.4
Distillery & brewery employees	78.18	73.86	+5.8	+2.1
Dairy employees	57.02	53.94	+5.7	+1.9
Electrical manufacturing	75.00	70.95	+5.7	+1.9
Radio station employees	69.80	66.05	+5.8	+1.9
Laundry workers	41.57	39.34	+5.7	+1.9
Bakery workers	59.03	56.05	+5.3	+1.6
Aircraft factory workers	81.15	77.25	+5.0	+1.3
Urban & interurban transportation employees	71.55	68.62	+4.3	+0.6
Gold miners	72.02	69.75	+3.3	—0.4
Hotel & restaurant employees	37.10	35.87	+3.4	—0.3
Department store employees	50.44	48.96	+3.0	—0.6
Telephone employees	61.66	59.85	+3.0	—0.6
Retail food store employees	46.91	45.93	+2.1	—1.5
Agricultural implement factory employees	77.04	75.53	+2.0	—1.6
Insurance industry employees	70.30	69.13	+1.7	—1.9
Coal miners	60.07	59.11	+1.6	—2.0
Auto workers	81.74	82.38	—0.8	—4.3

Biggest wage gains in the April-to-April period for which wage figures are available are workers in the building trades. Average weekly wages in this industry are up 14.1% in dollar terms and after accounting for higher living costs, income is 10% higher in real terms.

Greatest real gains have been made, by and large, in industries where the most important expansion is going on and where, in many cases, union contracts call for cost of living adjustments.

Salaried workers and wage earners in the service industries are either achieving small real gains or losing ground in real terms.

Wages Lower

Average weekly wages in some industries are lower in both dollar terms and in real terms. In many of these, average hourly earning has risen, but the number of working hours has declined.

This is reported to be the case in the auto industry where average weekly earnings were lower at the end of April than a year earlier in both dollar and real terms.

People who live on dividend returns from common stock investments have fared better than wage earners in the fight against rising costs.

For example, a person who in April 1956 invested an equal amount of money in the 20 stocks which make up the Toronto Stock Exchange industrial index could expect dividends at the rate of $33.32 a year for each $1,000 invested.

A year later, his portfolio would produce dividends at the rate of $41.10 per $1,000 invested per year. This means that the investor's dollar gain in income was 23.3%; his real gain after accounting for the impact of inflation was 18.8%.

At the same time, the investor's holdings would be about 1% less valuable than a year earlier due to declines in the market value of the stock.

Bond Interest

But those dependent on interest from bond holdings bought in earlier years are not doing as well. For example, a $100 bond bought a year ago paid $4 per year in interest. Today it still pays $4 but in purchasing power the interest is only worth $3.86 in terms of the rent it can pay, the food and clothing it can buy.

Annuitants and pensioners, like the retired industrial wage earner, are taking the sharpest drop in real income. For example, a pension cheque which could buy goods worth $100 in April 1956 is currently only worth a little over $96.

That's the picture over the recent past. What about gains and losses over the past decade?

In industry, all major groups have chalked up impressive increases, not only in dollar terms but also in terms of what those dollars can buy.

These have been the real gains in average weekly wages and salaries over the past decade:

—Mining, up 30%.

—All manufacturing, up over 30%.

—Construction work of all types, up almost 46% in real terms (and more than double in dollars).

—Transportation, up 14%.

—Public utilities, up close to 29%.

—Trade, retail and wholesale together, 23% ahead.

—Employees in banking and finance, up 10%.

—Workers in service industries, up 30%.

Farm income however has been dropping. Total net income declined almost 15% between 1947 and 1956. However, with a trend toward fewer farm families, the effect of the decrease is softened and, in addition, its impact is by no means uniform.

Short Term Paper Interest Rate Off

MONTREAL (Staff) — Reflecting and easing in the short term money market, **Industrial Acceptance Corp.** this week reduced interest rates on its short term 30 to 89 day secured notes from 5% to 4½%.

Rates on other notes remain unchanged.

The decrease undoubtedly will mean a saving to the company in the cost of borrowing money. Actual amount, however, was not disclosed. The 30 to 89 day notes are only one of many forms in which IAC raises its required funds. (For comment on recent IAC operations, p. 27).

Reason for the decrease was cited as being the current greater availability of short term money. In addition to the saving in borrowing cost, company policy has been to follow closely the changes in the prevailing money market.

Were the company to maintain an artificial price above the general money market level, it would be forced into the position of picking and choosing from among prospective purchasers of its notes.

The decrease in the interest rate is the first indication of a downward trend since October of last year. At that time interest rates on IAC's notes was hiked from 3¾% to 4% and in the following month a second increase boosted the rate to 5% which has prevailed until the present.

Books for Businessmen

BORNEO PEOPLE by Malcolm MacDonald; Clarke Irwin & Co., Toronto; 424 pp.; $5.

Rt. Hon. Malcolm MacDonald, U. K. high commissioner to India, is the son of Britain's first Socialist prime minister, J. Ramsay MacDonald. Formerly, he was U. K. high commissioner to Canada and governor-general of Malaya and British Borneo.

Borneo People is a lively narrative of Mr. MacDonald's visits to fascinating inhabitants of the state of Sarawak on the Island of Borneo.

As governor-general he made a series of trips up the great rivers, the natural highways of Sarawak, on ceremonial and social visits to pagan tribes of the interior.

He lived with pagans in their long-houses, presided over their ceremonies, danced native dances (clad in his native costume—the kilt), sang their songs, contributed songs of his own and, in every possible way, joined in Borneo's way of life.

His affection for Borneo and its people is admirably revealed in this very readable book, with 32 pages of excellent illustrations and photographs by the author.

* * *

DIVERSIONS OF A DIPLOMAT IN CEYLON, by Philip K. Crowe; Macmillan of Canada, Toronto; 318 pp.; $5.75.

Mr. Crowe is an avid sportsman and explorer who was recently the U. S. ambassador to Ceylon. He sees the island as a paradise for the ornithologist and botanist.

His trips of hundreds of miles by jeep and canoe across Ceylon's trackless jungles, down the long Mahlaweli Ganga River, to some of the remote coastal islands, gave him a deep insight into the Ceylonese and the island's wonderful fauna and flora.

The overall result: Absorbing accounts of wild animals, village life, the caste system, peasant dancing, history, archaeology, the Veddah aborigines and the economics of tea-planting.

* * *

THE INVESTMENT DECISION, by J. R. Meyer and Edwin Kuh; S. J. Reginald Saunders and Co., Toronto; 284 pp.; $7.95.

This is one of the series of economic studies published by Harvard University. Meyer teaches economics at Harvard, Kuh teaches in the School of Industrial Management, Massachusetts Institute of Technology.

Their book is concerned with the factors that influence business in planning the purchase of plant and equipment. It shows how capital spending varies from firm to firm, industry to industry, at every stage of the business cycle.

Data for the book are based on the performance of 600 firms during the years 1946-50. Divided into 15 industrial groups, it spans a period of recession, inflation, shortage and boom.

* * *

GOURMET'S GUIDE TO GOOD EATING; by the editors of Gourmet; Simon & Schuster, New York: 232 pp.; $1.50.

As every traveler knows, good food is essential to a good trip—whether business or pleasure. If you're vacationing in your car, a guide to the restaurants along your way becomes more important than a road map (there are always road signs).

In this little book, the editors of a magazine devoted to good living have compiled useful information about 2,700 restaurants in the U. S., and 95 in Canada. Each of the restaurants has been recommended by one or more readers of Gourmet.

* * *

THE CLUB, by Andrew Graham; Macmillan Co. of Canada, Toronto; 245 pp.; $3.

There's one predominant thought as one picks up this book: How far will the author dare go? The subject is nothing less sacrosanct than goings-on in an exclusive English club in London's West End. The author, a British diplomat, is obviously a man with inside knowledge.

Brave is the writer who dares tackle this subject. As a clubman he must know the seriousness of inviting an undesirable guest inside. But to go past the intimidating hall porter with the reading public behind him is surely provoking worse than censure?

However, this is no reason to deter the reader. He will find a number of recognizable characters, share a score of amusing episodes — and even learn how such places struggle to stay solvent.

* * *

UNIVERSITY OF TORONTO QUARTERLY; University of Toronto Press; $4 a year.

The January and April issues have been received.

January carries a major study on the impact of industrialization on human well-being. Contributors include Sir Geoffrey Vickers, wartime deputy director-general of the U. K. Ministry of Economic Warfare, C. E. Hendry, director, School of Social Work, University of Toronto, and Oswald Hall, professor of Sociology, University of Toronto.

Elsewhere in the issue are articles by Alexander Brady on British conservatism, M. D. C. Tait on Plato's use of myth, and N. J. Endicott on Walter de la Mare.

The April issue contains an important review of work in the literary field in Canada in 1956.

* * *

COMMUNITY CHEST, A CASE STUDY IN PHILANTHROPY, by Community Surveys Inc., Indianapolis, Ind.; University of Toronto Press, Toronto; 593 pp.; $7.50.

For some time the Indianapolis Community Chest had been failing to meet its objectives and Community Surveys set out to study the problems the chest was facing. The attempt grew into a comprehensive study of philanthropic practices, which is applicable in any North American city.

This examination of mass fund-raising and giving is a critical one and without precedent in the field. Welfare workers will find in it an extraordinary amount of material, both factual and interpretive, to suggest new solutions to the problems of community fund-raising.

YOUR HOLIDAY IN AUSTRIA by Ernest Welsman; McClelland & Stewart Ltd., Toronto; 230 pp.; $2.50.

Austria was long in regaining its independence after World War II, but is now reunited and unoccupied by foreign armies. The author, a prolific British travel writer, has provided a good description of this ruggedly beautiful country, one of Europe's least expensive vacationlands.

Specific information such as prices is given perhaps too sparingly, but this at least prevents the traveler from being disappointed by finding that prices have risen after publication of the book. Dozens of photographs are included.

* * *

SPANISH JOURNEY by W. T. Blake; McClelland & Stewart Ltd., Toronto; 219 pp.; $5.

An account of a British couple's 1956 trip in their station wagon through the length and breadth of Spain, told in the first person, and illustrated with 32 color and black-and-white photographs by the author.

* * *

FREER TRADE IN EUROPE, United Kingdom Information Service, Toronto; 31 pps.; 41 cents.

Canadian businessmen interested in the proposals for a free trade area in Europe will find this a valuable reference book. Charts and tables help to answer some of the basic questions about European trade, what the "free trade" proposal really is, and the size and nature of the possible market.

* * *

MANUAL OF THE TEXTILE INDUSTRY OF CANADA, 1957; Canadian Textile Journal Publishing Co., Montreal, 318 pp.; $5.

The 29th annual edition of this reference work on Canadian textiles contains some 30 articles contributed by leaders of the industry.

There are detailed statistical studies of some branches of the industry up to and including 1954, a summary of textile markets in Canada, a buyer's guide and a mill directory.

* * *

THE ANATOMY LESSON and other stories, by Evan S. Connell, Jr.; Macmillan Co. of Canada, Toronto; 214 pp.; $3.75.

This is the first published book of a rising young (32) U. S. writer, who has already distinguished himself by winning top literary awards. Its eleven short stories exhibit an unusual versatility and wide range of subject and characterization.

* * *

TRAINS: Electronic Age Edition, by Robert Selph Henry; McClelland & Stewart Ltd., Toronto; 152 pp.; $4.50.

In pictures and text, the author recounts the history of railroading in the U. S. from the earliest days of steam to today's diesels, electronics and radar. The book is generously supplied with interesting photographs of mid-nineteenth century trains, tracks and trestles.

NOTICE

PLEASE TAKE NOTICE that THE MANHATTAN LIFE INSURANCE COMPANY of NEW YORK will apply to the Minister of Finance of Canada for the release of all the assets of EXPRESSMEN'S MUTUAL LIFE INSURANCE COMPANY of NEW YORK, whose assets are absorbed and whose liability is assumed by THE MANHATTAN LIFE INSURANCE COMPANY of NEW YORK pursuant to a reinsurance and assumption agreement dated December 31, 1956, which assets are now on deposit with the Minister of Finance of Canada, on the 30th day of October, 1957. All policyholders and certificate holders of said EXPRESSMEN'S MUTUAL LIFE INSURANCE COMPANY of NEW YORK in Canada who are opposed to the aforementioned release of assets must file their opposition thereto with the Minister of Finance of Canada on or before said October 30, 1957.

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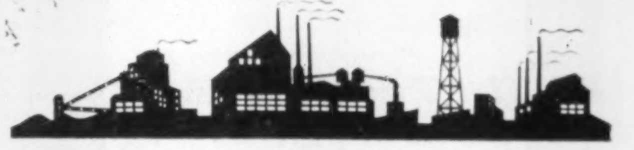

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FP-37

ANNOUNCEMENT

MR. MAURICE MESSIER, C.A.,

has recently been appointed Controller of the Provincial Electricity Board of the Province of Quebec.

FOUNDATION CO. OF CANADA LTD. issued 3,839 additional common shares during the quarter ended June 30, 1957. On that date there were 466,995 common shares outstanding.

Letter from London

by Adelphi

Officers Forced to Quit

Harold Macmillan is a tough Scot but he must be relieved that the long summer recess is at hand and that for the next two months, he will not have to face the grand inquest of the nation — as Parliament is sometimes described.

It befits his highland breeding that he is accustomed to go out in all weathers but he must wonder if the glory of being prime minister is sufficient reward for the endless storms that beat upon a British government these days.

An ex-officer of the Brigade of Guards he had the melancholy task of announcing this week the terms of compensation to the sacked regulars in the fighting services.

Naturally the army is hardest hit, but the casualties in the navy and the air force will be heavy.

Britain's first line of defence is going to be in the nuclear realm. In other words the first line of defence will be the striking power of the H-bomb.

Macmillan obviously believes that the pomp and glory of war belong to the past. The scientist has replaced the man in uniform.

Compulsorily retired colonels and their equivalents will receive a capital untaxable payment of £6,000, plus their normal pensions and gratuities.

A captain in the Royal Navy at the age of 42 after 21 years' service, will get retired pay of £800 a year plus a terminal grant of £2,400 and a special capital payment of £6,000.

I have not the space to give the compensation at other levels but whatever the government does it cannot make redress to the younger officers in the services for the breaking of their careers.

Industry and commerce will be urged to find openings for them, but I have no doubt that a large percentage of the axed officers will be thinking about trying their luck in Canada.

With some diffidence I suggest that you could hardly get better immigrants anywhere than these younger men of the services.

* * *

Market Strike Gets Rough

It is doubly unfortunate that at such a time there is a worrying spate of strikers which not only costs money to everyone concerned but embitters the relations of workers and employers.

The porters in Covent Garden—I refer to the vegetable market and not the Opera House—are having yet another strike which got so out of hand that the police drew their truncheons and showed every intention of using them if necessary.

Also we have a bus strike in the North which has caused serious dislocation.

The old familiar design never changes. Up go wages and, automatically, up go prices in their train.

This is not too bad for the trade unionists who can keep on demanding that their wages must be related to the cost of living but it is hell for the pensioners and others on fixed incomes.

Unfortunately there is no one with the personal authority of Churchill to speak for the nation. Although Sir Winston was a man apart, he could somehow identify himself with both sides and exert a pressure which was accepted as non-partisan.

And he succeeded in doing this despite the fact that, as a minister, he was chiefly responsible for breaking the General Strike in 1926.

* * *

I am sorry to paint so dark a picture, especially as there are many sunny gleams that break through the encircling gloom.

One thing that almost brings the smile to Macmillan's face is the obvious increase of tourist revenue. There are so many Americans and Canadians in London at this moment that one wonders where they find a place to sleep.

The Convocation of the American Bar Association alone presented the problem of accommodation for five or six hundred lawyers and judges and a lot of ladies yet they are only a drop in the vast pool.

* * *

No doubt the U. S. jurists, during their visit to London, took note that the first hanging for more than two years coincided with their arrival.

As you will no doubt remember the death penalty was done away with but a few months later the Government introduced and carried a compromise Homicide Bill which clearly stated the type of murder which would attract the death penalty.

Thus if a man slowly poisons his wife so that she dies horribly and thereby enables him to marry another woman, he will not be hanged. But a burglar who is detected and kills someone in a panic or in order to escape will swing.

In fact it was just such a case which brought back the hangman from retirement this week. Even the Parliamentary abolitionists raised no row when the thug was duly hanged.

But at least there was no grisly pantomime of affixing the certificate of death to the prison gates and thus giving a ghoulish thrill to the crowd that always turns up. That at least is one of the reforms brought about by the abolitionists.

* * *

I had the pleasure of drinking a cocktail with a lively collection of Canadian golfers known, I believe, as seniors.

They were to leave next morning for Deauville, that famous resort on the Normandy coast where you can gamble in the casino until daylight suggests that it is time to go to bed.

No doubt they played the roulette tables in the casino and thus contributed to the wealth of Monsieur André who is the casino king of France and owns nearly every hotel in Deauville.

The wisest remark ever made in a casino was by a British bookmaker who was asked to play at the roulette table.

He studied the table with its 36 numbers, looked at the croupier ready to spin the little ball and then said: "Thirty-six numbers and all trying? No thanks."

Nevertheless the Canadian golfers, like the British, will have a chance to ruminate on a system of society where alcoholic drinks are served at any hour of the day or night and one never sees a drunken man.

* * *

Share Sales Are Flagging

Now for the London Stock Exchange. This is a time of the year when investors sell their doubtful or inactive shares in order to go abroad with a free mind. Thus even such sturdy favorites as Shell, Burmah and BP have sagged.

Incidentally it was no less a publication than Hansard, the most accurate and painstaking publication in Britain, which this week recorded an MP as referring to the sorry condition of "GUILT edged securities."

Hansard at once issued an apology and a correction, yet when you look at the price of government securities today and see how heavily their price has fallen one wonders if Hansard may inadvertently have stumbled on the correct spelling.

Simultaneously there has been a sharp up-turn in manufacturers' and other stocks. These shares show an upsurge value of £150 millions against a fall of £10 millions in the preceding quarter.

All of which would seem to point out that the investors believe that inflation and still more inflation will be the trend of the next few months.

A. GEORGE SMELLIE

of Russell, Manitoba, has been elected national president, Retail Merchants' Association of Canada.

$3 Million Forces Paycheck For N. S.

From Our Own Correspondent

HALIFAX—More than $6 million of the $30 million granted in pay increases to Canada's armed forces will come into the Atlantic provinces and about $3 million of it into Nova Scotia.

These figures are based on estimates of service strength in these provinces.

About 24,500 men in the Atlantic Commands of the Navy and Army will share the increases. Figures for the Air Force could not be obtained because the various Air Force establishments are not all counted in the strength of the Maritime Air Command.

The Navy alone in this area will receive 8.5% and by far the largest proportion of the Navy increase will come to the Halifax area.

Manitoba Gets $32,000 Fire Protection Grant

From Our Own Correspondent

WINNIPEG — The Province of Manitoba this year is getting an estimated $32,000 grant from Ottawa for forest fire protection, the first received for this purpose under the federal Canada Forestry Act enacted in 1949.

Grants in the interim have been made to Manitoba and other provinces for taking an inventory of forest resources and to pay some of the cost of projects of forest conservation, chiefly reforestation work.

No money has been forthcoming toward fire protection of present resources. Now that the inventory work is about finished in Manitoba money will be available for other purposes.

Under a five-year agreement dating from April 1, 1957, $500,000 is being made available to all provinces, provided they sign the agreement with the Federal government.

Next year there will be $750,000 and $1,000,000 a year for the final three years of the agreement.

The money will not be available for actual fire fighting but rather for fire suppression projects such as building roads or lines of communication to make forested areas more easily accessible in case of fire.

In Manitoba a good part of the federal money will be for construction of more watch towers.

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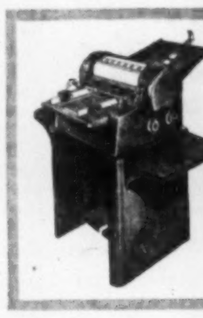

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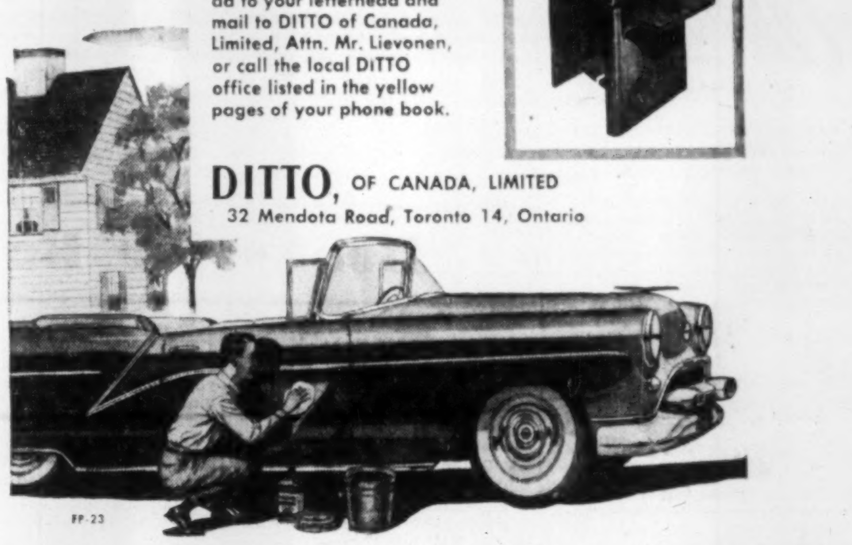

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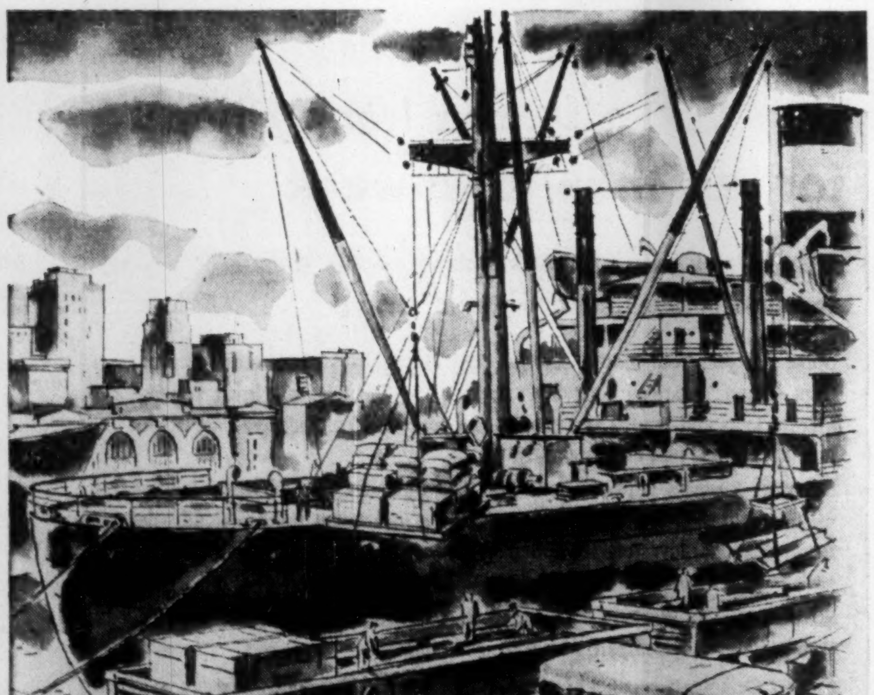

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The Financial Post

Canada's National Weekly of Business, Investment and Public Affairs

"Indian Lake Estates, the multi-million dollar luxury residential development bordering Lake We-oh-ya-Kapka, is well underway. Comprising about 7,000 acres, this development will have about 6,500 half-acre residential sites—the rest being devoted to palm-lined avenues and beaches, a modern club house, golf course and other recreational facilities. Close to famous beauty spots as Lake Wales and Cypress Gardens, it is in one of the most scenic areas on the continent."

THE CHRISTIAN SCIENCE MONITOR

"Mr. Ackerman brings to his 15-square mile Indian Lake 'We-oh-ya-Kapka' the vision of an idealist combined with the get-up-and-go of a practical builder. He is here, there, and everywhere, directing, persuading, and energizing the crews that are gradually building the community into a pattern that the eye can follow."

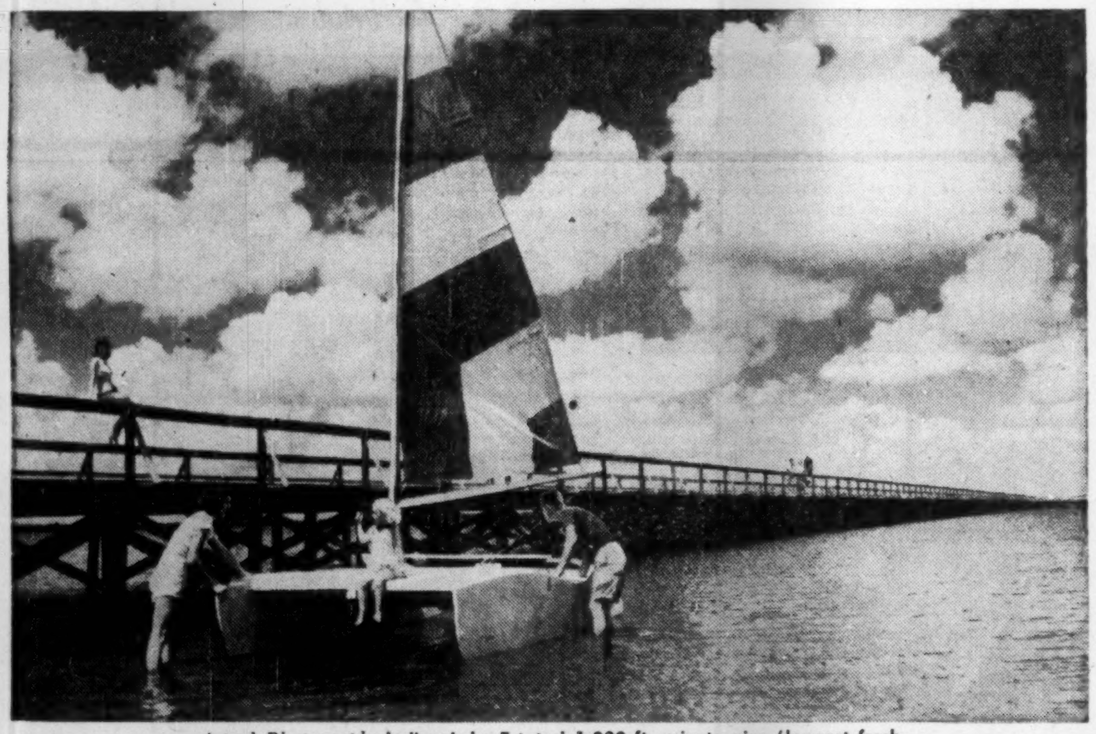
TOWN & COUNTRY MAGAZINE

"A new private city is in the making . . . Indian Lake Estates in the beautiful lake and ridge section of South Central Florida. Great progress has already been made. From the palm-lined avenues to the wide beach fronting on the 15-square mile spring-fed lake, everything is being planned to make this one of the outstanding country club residential communities in the country."

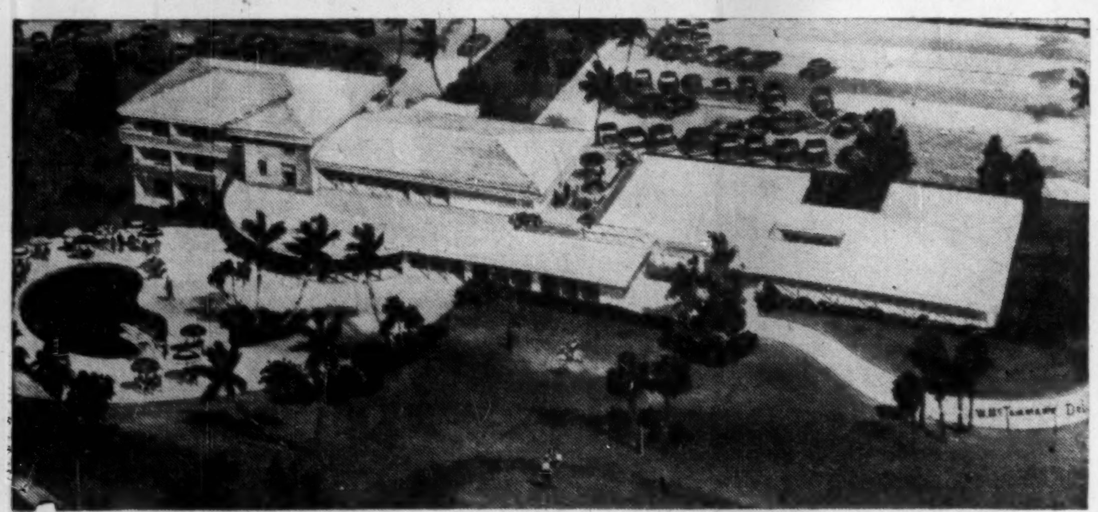
Miami Herald

"A Florida development that is living up to its fanfare is Indian Lake Estates. Last July, the Herald carried a story about this heavily-advertised development. The verdict then: Indian Lake Estates was NOT in the wildcat and misleading mail-order pattern."

Actual Photograph: Indian Lake Estates' beautiful 15-square mile lake has a firm, sandy bottom sloping gently from the shore.



Actual Photograph: Indian Lake Estates' 1,000-ft. private pier (longest fresh water pier in Florida) on Lake We-oh-ya-Kapka for Indian Lake Club members.



Club House for Indian Lake Estates— construction is well underway. This spacious club house is adjacent to the 18-hole golf course (now under construction).

OUR EXPANSIVE DEVELOPMENT PROGRAM HAS ATTRACTED NATION-WIDE ATTENTION

Private Country Club Community in Florida

For the location of our private Country Club Community in Florida, we made a careful three-year survey of the State. We wanted a place in the "golden state of Florida" suitable for year-round living. We found an unbeatable combination of advantages in the highland lake region of South Central Florida. For sheer beauty, delightful year-round climate, recreational opportunity, cultural advantages and sound investment, we are convinced that no other section has so much to offer. Indian Lake Estates has a gradual, rising elevation from 64 to 115 feet, away from enervating humidity, yet close to both Ocean and Gulf.

Many, like ourselves, who have seen the entire State regard the highlands of South Central Florida as its most beautiful section. The rolling hills and picturesque lakes, in addition to their scenic beauty, provide natural air-conditioning. The location in the Ridge Section — with Florida's highest elevation — and midway between the Atlantic Ocean and the Gulf of Mexico, affords marvelous advantages. Add to that the magnificent 15-square mile, spring-fed lake on which Indian Lake Estates borders and you can see the unlimited recreational opportunities. Best of all, the delightful, dry climate here makes possible comfortable, enjoyable living all year-round. When you visit Indian Lake Estates, you will see that there is a difference here in climate: higher, dryer, cooler in summer, warmer in winter.

Indian Lake Estates is an ideal place to live and expertly planned for discriminating people. Building plans must be approved by the Planning and Zoning Committee. All parks and street plantings will be well maintained. Personnel at the gate entrances to the property maintain the complete privacy of the community. At Indian Lake Estates you can enjoy suburban privacy with the conveniences of a metropolis. All features that will make for the maintenance of high property values and ideal living are carefully considered. Planned recreational activities are under the direction of Indian Lake Club Chairmen, who are expert in their fields and widely known for their accomplishments.

All property owners at Indian Lake Estates are members of the Indian Lake Club, whose approval is requisite for purchase. The wide variety of recreational facilities provided by Indian Lake Estates is for exclusive use of the club membership and their guests. Our nearby neighbor, Mr. Dick Pope, whose beautiful Cypress Gardens attracts millions to South Central Florida, said, "Any community in Florida would be proud to have Indian Lake Estates' pier and beach." Our 1,000-foot pier — the longest private pier in Florida — and Lake We-oh-ya-Kapka's wide, white sand beach fringed with coconut palms afford relaxing recreation in a beautiful setting. Four rows of palms have been planted on this spacious beach to further enhance its beauty and enjoyment. A magnificent, modern club house is now being built with an adjoining 18-hole golf course.

We are delighted when people come to Indian Lake Estates and tell us that they have compared our development with others in the fast-growing State. Great enthusiasm is shown for our unique plan of development and the unstinting outlay of money for improvements. So great has been the interest in this multi-million dollar development that it has attracted newspaper representatives from many states who have brought to their readers unbiased, on-the-scene reports of the continuing progress at Indian Lake Estates. Until you too have the opportunity for a personal visit, you might like to peruse our brochure which will be sent to you upon request . . . but, by all means, you will eventually want to see for yourself, by making a visit to Indian Lake Estates.

Leon Ackerman

President of Indian Lake Estates, Inc.

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ANNOUNCEMENT

EASTERN TRUST APPOINTMENT

J. G. CHALMERS

Donald McInnes, Q.C., President of The Eastern Trust Company, has announced the appointment of J. G. Chalmers, M.E.I.C., to the advisory committee of The Eastern Trust Company at Moncton.

Mr. Chalmers is a Director of Bathurst Power & Paper Co. Ltd. and of Cascapedia Manufacturing & Trading Co. He is also a Director of the Atlantic Provinces Economic Council, and is a Past President of the Bathurst Board of Trade.

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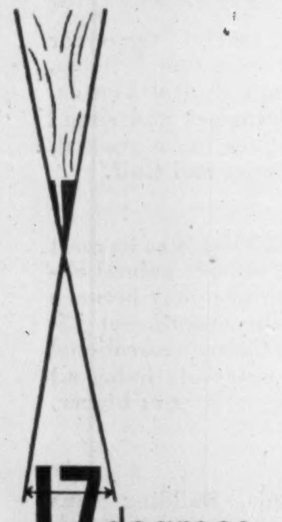

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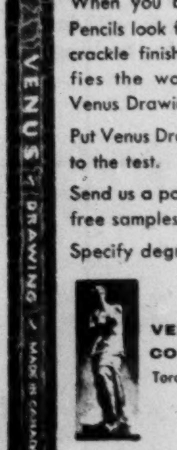

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Financial Reporting

Watch Your Figures

Economic and social changes are creating new problems in the field of financial reporting.

So says Marquis Eaton, president of the American Institute of Certified Public Accountants, the U. S. counterpart of the Canadian Institute of Chartered Accountants.

In a recent address, he discussed the forces affecting accounting policies, and lists some of the many problems still unsolved. Here is a digest.

By MARQUIS EATON

Financial reporting as a discipline is relatively young. At the beginning of this century corporations reported whatever they pleased, if anything, and kept their accounts according to their own best notions. Independent audits were not required, and the accounting profession was a mere infant.

There has been impressive progress in the last 40 years. But the fact that much progress has been made does not mean that all of the problems of accounting are being rapidly solved. We must squarely face the possibility that economic and social changes may be creating new problems at least as rapidly as older ones are being liquidated.

The income tax, for example, has spawned a whole new set of dilemmas. Its influence is powerful but not always healthy.

Where permissible alternatives exist business management is naturally inclined to adopt whichever accounting methods will result in the least tax. These may not always seem the best methods for purposes of reporting results to shareholders and the public—even though acceptable to the Internal Revenue Service.

Accountants can hardly insist that stockholders ought to pay millions of dollars in additional taxes as the price of abandoning a lawful and acceptable method of determining net income in favor of one which the accountants may believe to be preferable.

Regulatory bodies, too, have a profound influence upon present-day accounting. They may impose rules upon some segments of business designed to enable the agency to perform its supervisory functions, but may be less desirable in terms of fair financial presentation. Yet these rules may become precedents of "accepted accounting."

And there is a third force that shapes accounting: the impact of fast-changing **business practices.**

The widespread adoption of pension plans differing in nature, legal structure and procedure; the diversification of products within corporate entities; the swift-running tide of mergers and consolidations; the increasing amounts devoted to research, advertising and other activities which tend to benefit future periods; the huge investments in new plant, equipment, or exploration whose profitability can be determined only by future events; the sale and leaseback of plants and machinery—all of these developments have created a host of new and complex accounting problems.

Currency Decline

Perhaps the most significant of these recent developments has been the steady decline in the purchasing power of the currency. This has touched off a debate, which has now been raging for 10 years, around the question whether fixed assets should continue to be depreciated on the basis of historical costs, or whether depreciation should be adjusted to reflect changing price levels.

Some distinguished certified public accountants and many business leaders argue persuasively that reported profits are grossly overstated, and capital is being taxed instead of income, when the difference between depreciation charges and the cost of replacing worn-out facilities is not given recognition as an expense.

On the other hand many thoughtful certified public accountants and business executives do not believe that it would be desirable to determine profits on a basis which, in effect, substituted replacement cost for actual cost of fixed assets. They recognize that inflation confiscates capital, but contend that this cannot be cured by accounting. Rather, they hold, amounts should be retained from profits to replace assets at current costs when they are greatly in excess of the historical costs.

The Institute has given this admittedly complex problem extensive and intensive consideration. Ten years ago it sought the opinions of hundreds of corporate executives and found opinion widely divided. Another similar survey will be conducted in the near future.

Continuing Study

In 1947, the Institute sponsored a "Business Income Study Group," composed of accountants, lawyers, corporate executives, labor leaders, economists and government officials. For some four years, with Rockefeller Foundation support, this Group studied the problem of determining business income in a period of inflation.

The conclusions, which might be interpreted as recommending as a long-range objective the determination of income measured in units of approximately equal purchasing power, was subject to 32 pages of comment and dissent by 15 of the 44 members of the Group.

The Institute's committee on accounting procedure has issued two releases on the subject, suggesting supplemental statements showing amounts of profit which must be retained to make up the difference between depreciation allowances and replacement costs. Few companies have followed this suggestion.

Study of the problem nevertheless continues. The Institute committee has periodically reviewed its earlier conclusions. Up to now it has not felt that it would be in the best interests of all concerned to recognize as in conformity with generally accepted accounting principles the adjustment of depreciation so as to reflect the current value of the dollars actually invested in the depreciating assets.

Actually, this problem arises from a weakness in money as a medium of exchange and a measure of values. The question is whether changes in accounting principles can compensate for the imperfection of money as a common denominator without sacrificing other vital purposes of financial reporting.

Who Is Responsible?

This brings us to the question of just who is responsible for the development and enunciation of accounting principles which may be regarded as "generally accepted."

The accounting profession, through the Institute, has accepted the responsibility of leadership in the incessant search for better methods of financial reporting. But it does not have, cannot assume, and in my opinion should not permit itself to be regarded as having the **sole** responsibility for the results.

Corporation managements have the primary responsibility for their own financial statements. The statements are representations by the companies themselves. Obviously corporate management does have and must have a part in determining the broad objectives and basic assumptions underlying corporate financial reporting.

Government, too, has a responsibility to exercise its taxing powers and its regulatory powers in a way that will facilitate, rather than impede, sound financial reporting.

As a matter of fact, the Securities Exchange Commission already has authority to control the financial reporting of a major segment of business society. Fortunately, the Commission has wisely chosen not to exercise it, preferring to enforce the principles developed in the evolutionary process by the accounting profession and by business.

But the words of an early chairman of the Commission, the late Jerome Frank, are worth remembering: "Accounting is the language in which the corporation talks to existing stockholders and to prospective investors. We want to be sure that the public never has reason to lose faith in the reports of public accountants. To this end, standards of thoroughness and accuracy [must be] protected. I understand that certain groups in the profession are moving ahead in good stride . . . but if they are unable . . . to do the job thoroughly we won't hesitate to step in to the full extent of our statutory powers."

It would be a great misfortune for American business, and the whole economy, if uniform accounting rules were to be prescribed by governmental fiat. It would probably mean the end of progress.

The Interstate Commerce Commission did exactly this in 1914 for the regulated railroads. At the time, the ICC accounting classification was hailed as reflecting the best accounting thought of the day. It was cited as a model in accounting textbooks.

By 1957 it was completely out of date — far behind the financial reporting standards of industrial corporations.

Just a few months ago, a committee of the American Institute pointed out six major changes that would have to be made in ICC rules in order to bring them into harmony with generally accepted accounting principles. Until such changes are made, certified public accountants cannot certify financial statements of railroads as being in accordance with generally accepted accounting principles.

Share Responsibility

The New York Stock Exchange has a responsibility for the financial reporting practices of listed companies, and has actively encouraged improvement of accounting methods in co-operation with the Institute.

The accounting teachers, through the American Accounting Association, have assumed a share of responsibility for the development of accounting theory, and have issued a number of useful statements on the subject.

Other groups, such as bankers, financial analysts, economists, and financial editors, may have some responsibility to advise how financial statements may be made more useful for the purposes they are intended to serve.

In an informal, voluntary way, and in varying degrees, all these elements of our society have had a part in bringing the methods of determining and reporting business profits to a point far in advance of where they were 40 years ago—even 25 years ago.

Throughout this process the practicing profession of certified public accountants has had the responsibility for weighing the question whether new practices or proposed changes in accounting principles met the test of fairly presenting financial position and results of operations to an extent warranting the conscientious expression of a professional opinion.

We must now face, my final question — whether progress has been fast enough to meet the needs of our fast - changing society.

Perhaps the present process is satisfactory. The following statement by Justice Holmes in **The Common Law,** seems to be applicable to the development of accounting principles:

"The law is always approaching, and never reaching consistency. It is forever adopting new principles from life at one end, and it always retains old ones from history at the other, which have not yet been absorbed or sloughed off. It will become entirely consistent only when it ceases to grow."

But to say that accounting must develop, like common law, by the evolutionary process, is not to say that there is no urgency in the need for solutions to problems which confront us right now.

Problems Unsolved

Here is a partial list of problems not yet solved:

We have made some progress, but have some way to go in establishing the most useful and acceptable practices in connection with income tax allocation, where the amounts shown on the tax return do not correspond in important respects to the figures on the income statement or to the organization of the financial statements.

We recently made a survey of consolidated statement practices which disclosed a good many points of variation in practice which are being explored in an attempt to reduce the number of differences to a minimum.

There is a large group of problems in the intangible asset category, many of which are old matters which have plagued us for years. I am thinking of such things as the write-off of goodwill, the treatment of organization and promotion costs, the accounting for research and development costs, the handling of exploration costs of timber and mineral tracts and of intangible drilling costs in the oil industry, and others of this type which present baffling problems in accounting.

We have achieved much improvement in the form of the financial statements, but there is still much that could be done to make them more effective and readable.

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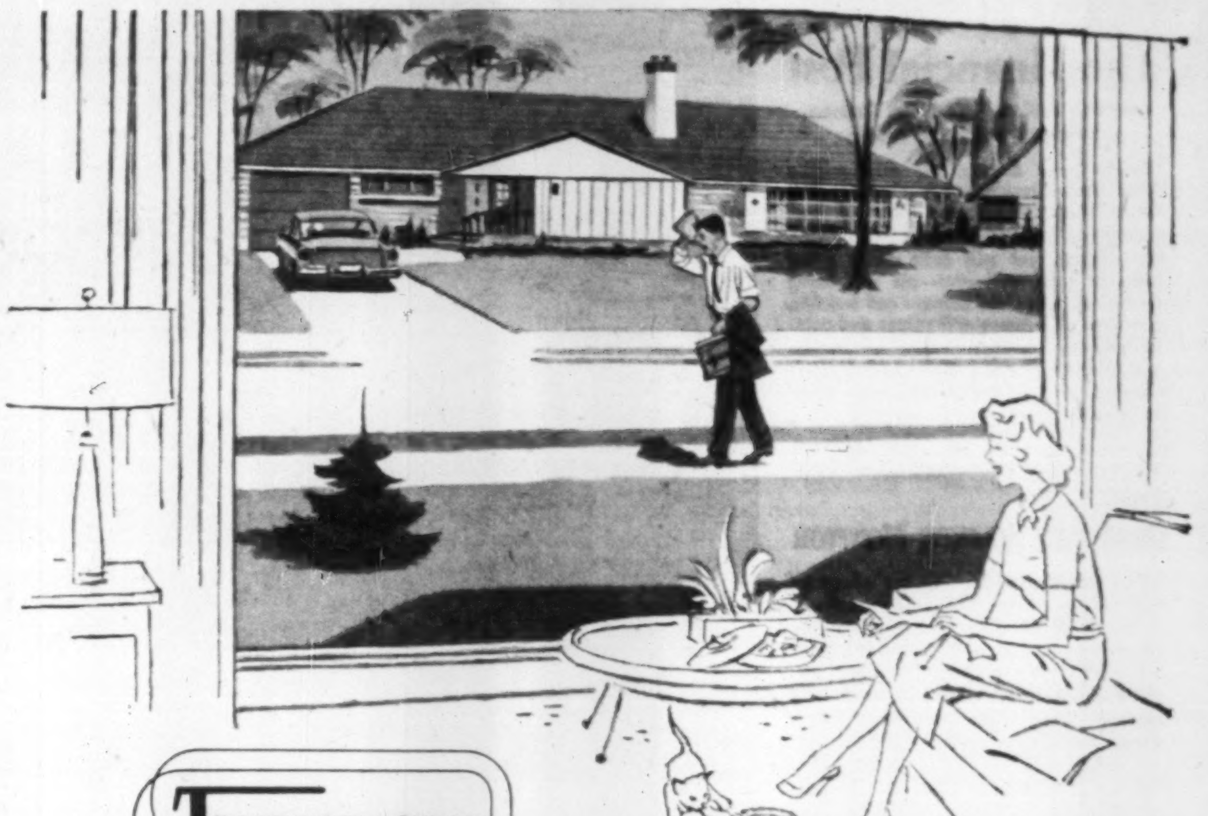
New $6 Million Chemical Plant Now Operating

A new $6 million plant of **Davison Chemical Co.** at Valleyfield, near Montreal, is now completed and producing synthetic fluid cracking catalyst for Canadian oil refineries.

Output of the Valleyfield plant has been scaled to provide for Canadian requirements for the foreseeable future. Approximately 80 are employed at the new plant, all of them Canadians with exception of the manager, William B. Davis, who has come from Baltimore headquarters of Davison, and F. C. Pott, plant superintendent, formerly with the Cincinnati plant.

The plant consumes large quantities of sodium silicate solution, sulphuric acid, anhydrous ammonia and alumina hydrate, all of which are of Canadian origin. **National Silicates Ltd.,** Toronto, has constructed a sodium silicate solution plant adjacent to the catalyst facilities, and supply of the material is through pipeline.

The company is affiliated with the Davison Chemical Co. Division of **W. R. Grace & Co.**



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New Financing Seen Necessary For Quebec Gas

Distribution construction and improvements on the Montreal Island gas system of **Quebec Natural Gas Corp.** will require more than $30 million during the next five years.

This is going to necessitate future financing, over and above that recently done to launch this huge undertaking.

"We must all face the realities that to get an enterprise of this scope into public service, with all its initial expenses, means lean years ahead," vice-president and General Manager Kenneth B. Lucas told the recent annual meeting of the Canadian Gas Association at Jasper, Alta.

Western gas will not reach Montreal until late in 1958. But if current negotiations are satisfactorily concluded it appears that an interim supply will become available and this should first reach the City Gate by end of this year.

The conversion work is scheduled to start this fall.

This will require an expenditure of some $6 million which it is proposed to amortize over 12½ years.

As a part of the over-all program it is planned to abandon the present coke oven plant, and convert four of the water gas sets for the production of high BTU oil gas for peak shaving.

Here are the projections for natural gas business five years after service first offered.

In 1956, the gas department of Quebec Hydron reported total manufactured gas sales revenue of $8,715,000. Five years after natural gas, annual sales revenue above $38 million is projected.

In 1956, gas sales were 8.5 million mcf of 465 Btu gas. On the five-year projection, and based on a 7,700 degree day year, sales of 1,000 Btu gas could reach 40-million mcf.

In 1956, manufactured gas service numbered only 2,430 heating customers or a saturation of about 1%.

Again, the five-year projection estimates a total of more than 98,000 space heating users, both central heating and non-central. Saturation would range from 27% to 37%.

In 1956, there were no industrial gas customers reported. In five years from the beginning of natural gas, a survey of potential consumers on a basis of competitive fuel advantage, shows the probable acquisition of 145 industrials, both firm and interruptible, with an annual estimated 24-million mcf consumption by that time.

Bank Staff Changes

Nova Scotia:

C. L. WARK, to be manager, Carp, Ont.

J. B. CARRUTHERS, accountant, Bloor & St. Clarens, Toronto, to be accountant, Kitchener, Ont.

A. D MacMILLAN, accountant, Maxville, Ont., to be accountant, Ottawa East, Ont.

J. P. MOYNAUGH, to be accountant, Sherbrooke & Greene, Montreal, Que.

MISS N. PEREZ, to be accountant, Avenida de Italia, Havana, Cuba.

J. A. MARTI, to be assistant accountant, Avenida de Italia, Havana, Cuba.

W. E. WOOD, accountant, Charlottetown, to be manager, North West Arm, Halifax.

W. P. BOWMAN, accountant, Ottawa East, Ont., to be accountant, Peterborough, Ont.

• • •

Royal:

R. M. CUTTELL, Supervisor's Dept., Calgary, to be assistant agent, New York.

L. L. PASCUAL, manager, Ayerstaran & Aranguren, Havana, Cuba, to be assistant manager, Havana, Cuba.

M. A. FERNANDES, accountant, Georgetown, B.G., promoted to assistant manager.

R. O. WILLIAMS, appointed accountant at Georgetown, B.G.

E. L. EMERSON, assistant agent, New York, retired.

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How Much Oil For Each Well? Big Problem Facing Alberta

As market outlets are falling further behind fast climbing oil production in Alberta, pressure is building up for a change in methods of oil proration—distribution of markets to different oilfields—in the province. The big push for change is coming from the major oil companies. Practically all of the smaller independent companies want to leave the system as it is.

Here's what the major oil companies recommend:

- Do completely away with present system of economic allowables (production allowables given every well to start off with and based on depth of well and originally designed to meet costs of drilling over a three-year period).
- Prorate entire market demand in direct proportion to the oil field (and well's) ability to produce (this maximum permissive rate is established by formula based on engineering data and with the aim to recover maximum production from the field).
- To prevent premature abandonment of some small producers set up a floor allowance.
- Total production expected from the wells on a floor allowance would be subtracted from the total market demand. The remaining portion of the market demand then would be re-allocated to all pools in direct proportion to their maximum permissive production rate.

But here's the way the independents look at it:

- Since a large part of their production is centred in the smaller oilfields where wells are producing at a high rate of maximum permissive rate they would be hardest hit by this recommended change.
- The resultant cutbacks in production in these fields would mean less revenue, less ability to finance, generally weakened position to carry on the hard aggressive business of looking for and proving up oil.
- The bigger companies with more funds at their disposal, operating over a wider range of fields and in several provinces, would become stronger still if this suggested change was approved.
- They strongly recommend that the present system of economic allowables and proration be left as it is.

Here are the opposing recommendations of a big major company—**Imperial Oil Co.**—and a typical smaller independent **Western Decalta Petroleum Ltd.** These briefs were presented to the Oil & Gas Conservation Board of Alberta, which is now preparing its report and recommendations.

Imperial Oil's Brief

The present market for Alberta crude is in the order of 430,000 b/d. About 60% of this demand is allocated essentially through economic allowances and unprorated pools. The remaining 40% or 175,000 b/d is allocated on the basis of maximum permissive rate. Since the total MPR of proratable pools is approximately 690,000 b/d, then the so-called proration factor is 0.25. This means that the effectiveness of the MPR in allocating production is only 25%.

Thus, in our opinion a disproportionate emphasis has been placed on the economic allowance in the present proration plan. This has resulted in wide differences between the rates of depletion of the various proratable pools.

For example, all wells with MPR's as high as 55 b/d have an allowable equal to their MPR; whereas wells in a pool with a high MPR have allowables as low as one-third of their MPR.

Imperial Oil submits that a more equitable method of distributing the market demand among pools, and thus wells, is in direct proportion to their respective MPRs. We recognize, however, that in the interests of conservation this principle must be departed from to the extent necessary to prevent the premature abandonment of wells. This can be accomplished by means of a floor allowance.

Imperial therefore proposes the adoption of the following plan for prorating production to market demand:

(1) The entire proratable market demand should be allocated to pools, and thus to wells, in the first instance in direct proportion to MPR's.

(2) Wells in pools for which the allocation, so calculated, is less than a floor allowance should be granted the floor allowance.

(3) The total production expected from those wells on the floor allowance should be subtracted from the total market demand.

(4) The remaining portion of the market demand should then be re-allocated to all pools, and thus to wells, not granted the floor allowance and this re-allocation should be in direct proportion to their MPRs.

Imperial's proposed plan of proration has the following advantages:

(a) All wells with allowables greater than the floor allowance would be permitted to produce at the same percentage of their MPRs subject only to the applicable penalty factors. This would reduce the inequalities with respect to rate of depletion between prorated pools down to level where they would reflect only the difference in drive mechanisms and producing characteristics.

(b) Since there would be no basic allowance for prorated wells, no additional allowable would be obtained for a pool by drilling a new well which does not effectively increase the pool's MPR. It follows that the incentive to drill the more prolific pools on unnecessarily close well spacing would be greatly reduced.

(c) The problem of allocating production to surplus wells in prorated unitized pools would be eliminated since prorated wells would not receive a basic allowance in any event.

Economic Allowance

We do not think that the economic or floor allowance should be calculated to give a payout of capital costs.

It is our opinion that both the present scale of economic allowances and the method of their application in the proration plan encourage the drilling of more development wells than are necessary for the efficient depletion of a reservoir.

This tends to divert effort from the search for new reserves and other useful projects, and in the long run will increase the unit cost of producing oil in Alberta and weaken the competitive position of Alberta oil in world markets.

We consider that the present scale of economic allowances is too high. However, we recognize that many companies will have purchased land and drilled wells on the basis of present economic allowances. Therefore, Imperial Oil recommends changes in the scale of floor allowances to the following schedule:

The present scale of economic allowances be used until Dec. 1, 1958.

On Jan. 1, 1959, the floor allowance be set at 35 b/d for every well in Alberta. On the first day of January in each succeeding year the flow allowance be reduced by 5 b/d until it reaches an ultimate level of 20 b/d commencing Jan. 1, 1962.

West. Decalta's Brief

The brief submitted by Western Decalta Petroleum Ltd. states:

The independent oil industry has invested over $114 million in proven and semi-proven Crown reserve parcels of land.

In the past five years this company has invested on behalf of itself and its associates over $6.5 million in the acquisition of leases from the Crown.

These acquisitions have been made on the promise of a certain definite and specific "rates of return," as distinguished from "payout," on the total acquisition and development costs of these leases.

Such "rates of return" have been directly related to a forecast of production rates, using the current system of allocating economic allowables as a "floor."

Any downward change in these allowables would decrease the rate of return and yearly revenue — a 10 b/d decrease in allowable at Leduc decreases the revenue 27%.

It would also tend to reduce the future bid prices for leases put up at Crown auction to a value commensurate with the equivalent payout periods expected under the present rates of withdrawal.

It would also make financing for independents much more difficult.

The banks currently demand a three-year payout using the economic allowable as a floor. If they have to estimate the allowable as well they will tend to offset the risk by lower loans.

The outlook for independent companies will be less favorable, which will tend to make convertible debentures, notes and even common stock more difficult to sell. Currently junior companies must pay 5% to 6% on a 10 to 15 year security with substantial conversion rights.

Any decrease in allowables not only places the independent in an even less favorable light in the credit market for the future — making future financing difficult — but will seriously affect present payout schedules and the meeting of current obligations.

In the past four years independents who have been responsible for over 50% of the wildcat drilling, received only 21% of the production revenue.

On the other hand only 17% of the wildcatting has been done by three majors who receive over 49% of the production in the province.

Any adverse change in allowables will decrease the revenue available to independents and over the long run will tend to reduce the wildcatting they are able to do.

Reduction in the economic allowable to 20 b/d would have the effect of reducing the cash flow of independent producers by approximately $20,000 per day or $7 million per year, with a similar reduction in their ability to explore.

A system of allocation of allowables which favors the larger more concentrated reserves of oil favors the major oil company at the expense of the junior company.

(a) the major companies predominate in the larger pools.

(b) The smaller pools such as Joffre, Joarcam, Leduc D2 and all Lower Cretaceous pools, where the independents have the majority of their holdings would be most heavily penalized by a reduction in economic allowables.

(c) The system of land tenure by which the major companies, with their great resources can hold great tracts of land in reservation form for extended periods, has and will continue to give the major the advantage in finding large oil fields.

19. In summary we submit that a downward change in the economic allowable will:

—Concentrate production in fewer and fewer hands with its resultant effects.

—Weaken the growing independent industry.

—Decrease exploratory drilling.

—Discourage development of low reserve, thin pay pools.

—Reduce the cash bonuses paid at Crown auctions.

Western Decalta submits:

- No change in the current system of economic allowables be made for all wells drilled to a depth of 5,000 ft.
- A change beyond 5,000 ft. be made to reflect the higher drilling costs incurred at these greater depths.

ANNOUNCEMENT

J. W. FEIGHTNER D. T. LENNOX J. E. WEIR D. E. STEEPE A. LESSARD

SOMERVILLE LIMITED APPOINTMENTS

President and General Manager F. C. Lennox announces the following changes in the sales organization of Somerville Limited.

Mr. J. W. Feightner has been appointed General Sales Manager; Mr. D. T. Lennox has become Manager of Sales Control and Development; Mr. J. E. Weir is appointed Sales Manager of the London Division, with responsibility for packaging sales in Ontario and Western Canada; Mr. D. E. Steepe becomes Sales Manager of the Consolith Division in Montreal, responsible for packaging sales in Quebec and Eastern Canada; Mr. A. Lessard is Manager of the Montreal Sales Office.

National Fair is Big Showcase For Booming Swiss Economy

With our imports from Switzerland steadily climbing ($22 million last year as against $19 million in 1955), Canadian businessmen are paying greater attention to Switzerland's great annual fair, the showcase for the country's booming economy.

The 38th Lausanne National Fair (or Comptoir Suisse as it is also known) to be held Sept. 7 to 22 has attracted 2,300 exhibitors representing Swiss industry, crafts, trade and agriculture.

Their exhibits, although extremely varied, will reveal the same concern for good workmanship and a desire for continual improvement in production techniques that have made Swiss products famous all over the world.

Sixteen divisions of this big Fall fair will show developments in the electricity, gas, textile, footwear, glassware, porcelain and printing industries; in machinery for building, welding and wood and metal working; in household equipment, furniture, radio, and in a wide range of food products. Watchmaking will have the pride of place.

Although essentially national in character, the Lausanne Fair has for some time made an exception by inviting each year one foreign country to take part as guest of honor. Last year it was Canada. This year it is Portugal's turn to enjoy the privilege.

There are special travel and hotel arrangements for visiting businessmen. The Swiss Embassy at Ottawa and the Swiss Consul in Toronto have details.

Reliance Electric Adds New Division

Reliance Electric & Engineering Co., Cleveland parent of **Reliance Electric & Engineering (Canada)**, Welland, Ont., is acquiring the assets of **Master Electric**, Dayton, O. Shareholders of both companies have approved the deal.

Combined organization will have sales of about $95 million annually, total assets $50 million, 5,800 employees.

Swiss Display Architecture

Selected works of Switzerland's leading architects, designers and craftsmen are on display for the first time in Canada to August 15 in the Building Centre, Toronto.

The 200-ft. long-exhibit consisting of 32 free-standing panels is sponsored by the Swiss Embassy. It features enlarged photographs of contemporary Swiss homes, apartments, factories, schools and industrial products.

George Banz, Swiss architect now practising in Toronto, observes that standards of architectural design are possibly higher in Switzerland than anywhere in the world, despite an almost total lack of raw materials.

His explanation: "The Swiss citizen has more direct control over the actions of his local, cantonal and federal governments than in any other modern nation."

The "man on the street" shows tremendous interest in works of architecture in his community.

Building permits for new structures or alterations to existing buildings are usually only issued after "experts" have decided on artistis merit of proposed work.

This procedure, says Mr. Banz, makes architectural monstrosities nearly impossible. It also accounts for the lack of "prima donna architecture" in Switzerland.

Canadian Sales Hike for White

White Motor Co. of Canada first half sales showed a slight increase over same period in 1956, according to President Henry Nave.

Net sales of the U.S. parent **White Motor Co.** totaled $109,817,968 in the first half compared with last year's record $112,525,457.

Net income in the first half was $3.56 million ($3.48 a share) in commonstock) compared with $3.35 million ($3.27 a share on the the first six months of 1956.

K. G. Green Heads Canada 'Scouts'

From Our Own Correspondent

REGINA—K. G. Green of **Canadian Superior Oil** of California was recently elected president of the Central Canada Oil Scouts Association at a semi-annual meeting in Regina.

Mr. Green has served as president through three previous six-month terms and has also served as secretary as well as editor for the association.

Other members of the executive elected at the meeting are: P. V. Christianson, **Imperial Oil**, vice-president; Clifford L. Fiesel, **Canadian Devonian Petroleums**, secretary; and J. R. Bicknell, **Tidewater Oil**, treasurer.

Are 'Shopping Centres' really new?

Remember the general store? In many ways it was a shopping centre. It carried an amazing variety of goods—groceries, dry goods, hardware—practically everything under the sun. But, our tastes and shopping habits have changed since folks bought dress material in the general store. Today's shopping centre, with its variety of shops and stores, bears little resemblance to the one in the illustration.

The automobile and the rubber that it moves upon have played an important part in the evolution of our present shopping habits. Today's shopping centres depend for their very existence on the countless fleets of trucks that deliver the goods and the millions of cars that carry the shoppers—and these, in turn, owe much of their efficiency to the superiority of synthetic rubber.

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Tree Bark

New Profits from Old Waste?

Of all Canada's timber felled 13% is bark. The pulp and paper industry produces 14 million cords of wood which means 8.2 billion lb. of bark each year.

It is estimated that at least 75% is wasted. The rest is used in tanning, making dyes and for fuel.

However, the pulp and paper industry has been trying for years to turn bark into a cheap soil builder.

Here is a report of progress made so far.

By ALLAN FENTON

MONTREAL (Staff) — For several years, pulp and paper companies have been interested in converting bark into an inexpensive soil builder.

The dream of a vast new market for this largely waste material is a little closer to reality today.

But the question is:

—Would the economics of collecting and distributing such a soil builder warrant installation of expensive equipment to produce it?

—Would the market be sufficiently attractive in terms of competition with the present peat moss or commercial soil conditioners?

Results from experiments on the use of bark as a soil amendment or soil mulch for the growth of large or small fruit, vegetables, lawn, flowers and shrubs have been considered very favorable.

In this field, one of the most active companies in Canada has been **Canadian International Paper Co.**

Its work on hardwood bark utilization is at present suspended.

New Interest

Interest in the subject has been revived with the recent Armour Research Foundation announcement in Chicago.

In conjunction with **Canadian Forest Products Ltd.**, they found:

In tests conducted with greenhouse plants and field crops the soil builder from converted bark was more effective in promoting growth and improving soil than either peat moss or commercial conditioners.

In its spring publication, Frontier, published by Armour Research Foundation of Illinois Institute of Technology, reported that in conjunction with fertilizers, the bark soil builder turns clay and sand into rich loamy soil in which plants grow at a surprising rate. It does three things:

—Loosens the soil and improves its moisture holding capacity.

—Serves as a base for fertilizer.

—Controls the rate at which plants get their food from soil.

But the "builder" is not yet a finished product.

The Institute says more research is needed to select the most effective type of product and processing methods.

For example, one type of soil builder that proved particularly effective in the latter stages of plant growth exhibited a tendency to repress germination.

Another type that does not repress germination was less effective in the latter stages of plant growth.

Proper Supply

"Fertility of soil is dependent upon a proper supply of nutrients always being available to the plants," the publication says.

"Thus, it is desirable that a mechanism be available in the soil for storage of nutrients.

"One method by which large amounts of nutrients can be held in the soil without harm to plants is the ion exchange mechanism.

"Plants obtain the nutrients thus stored by complicated processes involving microbiological activity in the soil.

"Susceptibility of the material to decay can be controlled in the bark soil builder by the degree of condensation in the processing.

"Production of the soil builder involves grinding the bark and condensing the tannin by the addition of formaldehyde followed by acidification with hyldrochioric or sulphuric acid.

"The mixture then is heated for a brief period to complete the condensation process. Water and other excess chemicals are removed and the material washed and dried."

The "builder" does not fertilize the soil as such. Rather, it increases the tilth of the soil — eliminates clods of hard lumps, enabling plants to feed better and grow.

Field Tested

The "builder" was tested in the field by the University of British Columbia with barley and beets, with excellent results.

These tests were sponsored by Canadian Forest Products.

Several other tests were conducted to study the relative merits of the different types of bark products developed and to gain comparisons with other soil fertility agents.

In sand the bark product gave 46% more growth than fertilized peat moss additions, and 134% more than sand with synthetic exchange resins added.

In clay, the same product gave 120% more growth than the fertilized controls and 28% more growth than additions of a popular soil conditioner.

Since the market for the bark builder is expected to be with the home gardener and the professional grower, suitability of the product was tested with several bulbs, flowers and plants.

Favorable growth was obtained with violas, estate lilies, tuberous begonias, and philodendrons.

Aside from plant growth tests, the bark products were observed to increase the moisture-holding capacity of the clay soils and to give them a porous granular structure so that acceptance of moisture was more rapid.

Further Uses

CIP's development and experimental work on hardwood bark utilization noted that aside from the use of bark as a soil amendment or soil mulch for the growth of various crops, once a processing plant was put into operation further uses might be found for the bark. These possible uses would be as bedding for cattle and horses, litter for poultry, top dressing for agricultural show rings, packing material for fruit, insulating material, filler for plastics, adhesive extenders, filler for absorbent explosives, etc.

Although it hasn't gone to the pilot plant stage, this would be necessary to develop material handling to a state of efficiency, and to produce experimental material of better quality and larger quantities for use by potential customers.

In this way exact cost production and distribution would be obtained, and a good start would be made toward developing a market determining more exactly the potential market.

At CIP's Hawkesbury mill 100 tons of hardwood bark per day had to be disposed or 40 tons per day when estimated as dry material.

This bark is burnt in the boiler house but in the event of an increase in mill capacity bark would become more of a disposal problem than it is now.

The hardwood bark utilization project was established in an attempt to find a suitable use for bark which would be profitable and also relieve the disposal problem.

As the disposable material consisted of several kinds of bark, each having different characteristics, it was decided that eventual bark utilization would be economically impossible. Consequently mass-utilization was the prime object.

The decision for mass utilization ruled out the possibility of chemical extractions from bark and necessitated concentrating on other uses.

As the material is organic in nature, and as organic matter is a necessary and rapidly depleting constituent of soils, it was decided to investigate utilization of hardwood bark as a soil amendment (incorporating bark into the soil) and as a soil mulch (adding bark to the surface of the soil).

Similar Results

Chemical analyses were conducted to determine the kinds and amounts of mineral elements present in the bark mixture.

They showed bark was comparable to the average farm manure with respect to content of major elements.

Minor element analysis indicated that bark contains all the necessary trace elements in small amounts.

Hardwood bark is only slightly acid and will not press the soil acidity or alkalinity when added to the soil.

Hardwood bark contains more lignin than most other materials and, as lignin is the basic constituent of soil humus, will supply more humus to the soil than most other materials.

Furthermore, as a lignin is only slowly decomposed in soils, bark will be a long lasting humus.

The slow decomposition of the bark in the soil will cause a slow release of its contained elements so they will not be readily leached away below the roots zone.

An experiment designed to substantiate or disprove the theory that tannins and resins in bark will depress if not kill off the micro-organic life in the soil was undertaken.

The experiment disproved the theory, for applications of 1% bark to soil increased the micro-organism activity by 55.7%. However, the increase in micro-organism activity created a soil nitrogen problem.

The micro-organisms require large amounts of nitrogen for their metabolic processes and, as insufficient nitrogen is present in the bark, they obtain the required amount in the soil.

This deprives the plants of nitrogen thus causing a temporary deficiency. It is this nitrogen deficiency which has given support to the bark toxicity theory.

Experiment was undertaken to determine what amount of nitrogen would be required in order to offset the temporary nitrogen deficiency.

59 New Producers Drilled In Manitoba's Oil Lands

From Our Own Correspondent

WINNIPEG — Outside already designated oil fields in Manitoba, exploratory work for location of new producers in the province has been disappointing in 1957.

For the first five months of the year total crude production was 2,439,361 bbl. The total yield from well outside the recognized fields was only 10,128.

From the start the exploring oil companies recognized that only in a limited area in the western part of the province, about 3,000 sq. mi., were they likely to find oil.

None-the-less millions have been spent outside this territory but thus far without much success.

The province at end of May however had 792 wells capable of production.

Since first of the year and up to the end of May new producers have been brought in at an average of better than one every three days but most of them on locations in recognized fields.

In January there were 13 new wells, 21 in February, 13 in March, 7 in April and 5 in May, a total of 59.

In only one month this year has production exceeded 500,000 bbl. In March it was 518,737.

The first three months this year daily production exceeded 16,000 bbl. In April it was 15,800, in May 15,715.

In recent months the gap between yield and self-sufficiency has widened.

The original Daly field which for a long period was the leading producer is now yielding less than half that of the Virden-Roselea and North Virden fields.

Of the 12 fields in the province these three are in fact the only major producers.

They accounted for more than 92% of the 487,165 bbl. production in May. Their respective productions were Daly 87,987, Virden-Roselea 183,531, North Virden 179,246.

In only one of the remaining nine fields, Routledge, did the month production exceed 10,000. Its yield was 11,098.

One other field approached it with 9,176. In another production was 6,534, another yielded 2,026, five had less than 2,000 each, and one less than 200.

Camp Gagetown Costs Tripled

From Our Own Correspondent

FREDERICTON, N.B. — Officials at Camp Gagetown anticipate Canada's new army base will cost around $100 million, or about triple the original estimate.

Some $65 million has already been spent on the 427-square-mile camp, originally expected to cost $35 million. Completion of construction is expected in 1959.

It will have more than 2,000 buildings, including homes for married personnel, and house a full infantry brigade.

Western Gypsum Expands in B. C.

Western Gypsum Products, Ltd., Canada (wholly owned subsidiary of **British Plaster Board (Holdings) Ltd.**, London, Eng.), is continuing to make satisfactory progress and profits despite the letup in the building industry, Sir Graham Hayman, chairman, told the annual meeting in London.

British Plaster is further increasing its investment in Canada, he said.

It is purchasing an extensive gypsum deposit in eastern British Columbia, and **Westroc Industries, Ltd.**, Vancouver.

The gypsum deposit will supply the Calgary board plant. Westroc's products are complementary to Western Gypsum.

Company has arranged with its Canadian bankers for a loan to finance these purchases. Company believes this expansion will make a valuable contribution to future earnings.

Western Gypsum is now developing a market for plasterboard in the Vancouver area, where it has purchased a site for erection of a $3-million plaster plant (**FP**, Oct. 13, 1956).

It is also extending and improving existing production units at Winnipeg and Calgary.

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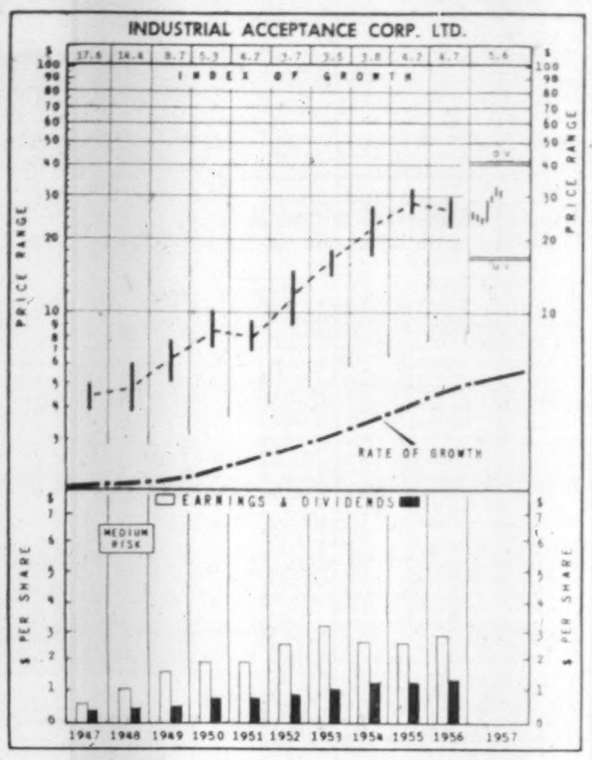
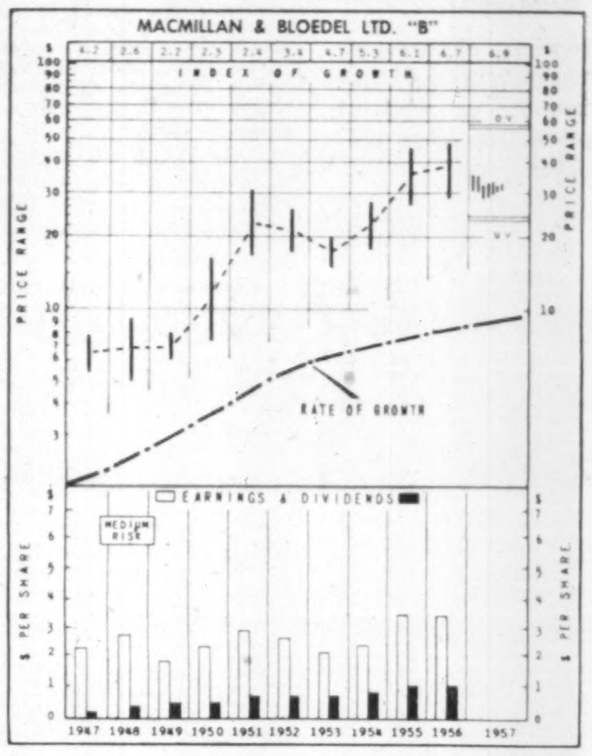
Selected Growth Stocks

— Quarterly Review —

By NESTOR

This exclusive FP series of Selected Growth Stocks was chosen by one of the continent's most prominent and successful investment advisers. The reasons for choice shown below the accompanying charts were those given when stocks were chosen in January, 1953. Each will be reviewed quarterly. This series in FP does not constitute a recommendation to buy these stocks.





Industrial Acceptance

Industrial Acceptance Corp. trading recently at $30¾, is 81% above UV level ($17), has room for a 30% rise before reaching OV level ($40). Price is 10.4 times 1956 earnings of $2.95, while yield at annual dividend rate of $1.40 is 4.55%. So for this year, price has ranged between a low of $23 and a high of $32½.

In the first quarter of 1957, net profit was $2.1 million or 68½c a share, up 11% from $1.9 million or 64½c a share in the corresponding period last year. During the quarter, earned income was $13.9 million, 24% higher than $11.2 million in the corresponding period last year.

While second quarter results are not yet available, the satisfactory trend is continuing, it is reported. Barring unforeseen reverses during the second half, company's full year earnings in 1957 will likely be in excess of the $8.6 million or $2.95 per common share realized in 1956.

Receivables have been increasing steadily and in addition experience with delinquent accounts is termed good. Company reports it has been able to adjust its operations satisfactorily in the face of substantially higher costs of borrowing money.

At a special meeting last month, shareholders approved a new set of bylaws which consolidated the bylaws previously existing. In addition, number of directors was increased by three to a total of 12.

Number of company's offices across the country has exceeded the 100 mark. The newest addition—the 101st—was recently opened at Lévis, Que. In addition a subsidiary, **Niagara Finance Co.**, has 50 separate offices plus representation in 66 of the parent company's branches. A second subsidiary, **Merit Insurance Co.**, has 11 branches and its own salaried adjusters in 33 other centres across Canada.

In April this year, company placed privately an issue of $17 million 20-year secured notes, Series "S", through **Greenshields & Co.** and **Wood, Gundy & Co.** Principal and interest of the issue are payable in U. S. funds.

INDUSTRIAL ACCEPTANCE—With Canada's population, wealth per capita, and utilization of consumer durable equipment still far from the saturation point, an attractive long-term outlook would seem present for companies financing installment paper. Industrial Acceptance, with branches throughout Canada, offers such credit on cars, trucks, industrial machinery and equipment, refrigerators, TV, radios and engages in the insurance and the small loans businesses. Company has an excellent growth rate, with earnings particularly rising during the postwar years.

MacMillan & Bloedel

MacMillan & Bloedel B, at recent market of $29, is 21% above UV level ($24), could rise 97% before reaching OV level ($57). Price is 8.2 times earnings of $3.54 a share in year ended Sept. 30, 1956. Yield is 3.45% at annual dividend rate of $1 per share (including 20c extra paid in past two years). Price in 1957 has ranged between high of $34 and low of $28.

Net profit of $1.9 million or 36c per share for the three months ended March 31 was 59.2% lower than corresponding 1956 net of $4.7 million or 88c. Net sales and operating revenues for the quarter declined to $41.6 million from $45.3 million a year earlier.

Sharp decline in prices of lumber and plywood products, higher costs, and lower production of plywood due to "market conditions," accounted for the drop in profits, according to company statement.

This brought net profit for first half of company's fiscal year to $5.2 million or 98c a share, down 42.5% from $9 million or $1.70 a share in comparable 1955-56 period. Net sales and operation revenues for the six months were $81.6 million, $3 million less than the year before.

Carloadings of lumber, timber and plywood in western Canada this year are running 10.6% below 1956—60,702 to July 7, vs. 67,921 in the same period last year.

Production of bleached kraft in Canada in first-half 1957 totaled 428,859 tons, up 6.7% from 401,961 tons in January-June last year. Unbleached kraft production is running 5.6% ahead of last year at 408,138 vs. 386,588 tons.

Consumption in Canada of bleached kraft reached 77,496 tons in the first six months of this year, an increase of 12.3% over last year's 68,998 tons. Unbleached kraft used was 5.7% lower at 266,299 tons vs. 282,361 tons.

Exports of bleached kraft from Canada amounted to 57,300 tons in January-June, 4.1% higher than 55,021 tons in first-half 1956. Unbleached kraft exports rose to 140,614 tons, a sharp 40.3% increase over 99,893 tons in 1956.

MACMILLAN & BLOEDEL — One of the largest manufacturers in the world of timber products, including output of plywood and kraft pulp, MacMillan & Bloedel, with large timber reserves, low-cost transportation advantages, and aggressive, research-minded management, has excellent prospects for participating in the world-wide growth of its industry. Expansion now under way to be completed next year will further boost production, including newsprint and kraft paper. Company's net worth has shown steady expansion, with postwar net per share appreciably above earlier years.

How to Read Nestor's Special Stock Charts

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.6 for the present year would indicate that at its current growth rate the equity value is doubling every 5.6 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjusted as underestimating or overestimating its future rate of growth. A stock showing a fast-growth rate will sometimes anticipate growth by two or three years. In this case it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality will also enter into the comparison an investor will want to make.

Without these UV and OV levels, a current quotation of say, 55 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale nor do they attempt to show what will be a stock's bottom or top figure in any given year.

RATE OF GROWTH: The rate as based on Nestor's tests at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years and in most instances the trend of dividend payments.

**Background and principles behind the selection by Nestor were discussed in a special article in FP, Jan. 10, 1953. A limited number of reprints are available on request.*

Petroleum

CANADA SOUTHERN PETROLEUM has acquired a 75% working interest in over one million gross acres in the Northwest Territories, President John W. Buckley reports. This general area is expected to be explored on a large scale by several major oil companies.

Of an expected $25 million expenditure in exploration and development this year in northeast British Columbia, about $7.75 million is to be spent on properties in which Canada Southern has substantial interests, Mr. Buckley says.

The company has a carried interest position in these properties on which **Phillips Petroleum** and other companies are carrying out exploration work, he points out.

Properties in which Canada Southern has interest are to be among the first suppliers of natural gas to the **Westcoast Transmission** line which is expected to take first gas deliveries this August, Mr. Buckley says.

CONDENSED CONS. BALANCE SHEET

As at Dec. 31:	1956	1955
Cash	$140,324	$684,439
Accts., etc., rec.	59,115	281,990
Deposit recov.	......	19,299
Inventories	37,172	109,468
Total curr. assets	236,611	1,095,196
Prepaid exps.	21,512	20,771
Investments	1,038,136	823,047
Land, wells, equip. & devel. costs	7,455,054	7,782,928
Well costs•	296,484	835,303
Land & bldgs.*	233,940	244,332
Other equip.†	238,866	248,243
Deferred exps.	......	......
Total assets	9,520,603	11,049,820
Total curr. liabs.	310,705	1,432,977
Notes & accts. pay.	1,305,033	305,033
Mtge. pay.	147,255	162,613
Capital stock	5,283,659	5,283,659
Capital surplus	7,258,164	7,258,164
Less: Cost of land surrendered	4,784,213	3,392,626
§Incl. in curr. assets in co.'s report.		
•After amort. of	133,674	379,527
*After deprec. of	47,440	37,048
†After deprec. of	96,528	72,786
Working capital▲	74,094	337,781

▲Excess of curr. liabs. over curr. assets.

Note — Co. is contingently liable for $3,739,000 debentures of former co. and $162,700 guarantee of bank loan of associated co.

Co., except U. S. subsidiary, is considered to be in an exploratory and development stage and all expenditures (less income) are capitalized. Such income totaled $142,344 in 1956. Net profit of the U. S. subsidiary for 1956 amounted to $21,956 on total income of $421,525.

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Financial

TORONTO & LOAN INVESTMENT CO., Toronto, net profit for the year ended March 31, 1957 was 21.4% higher at $297,012 ($244,684 in previous year).

Due to expansion of investment portfolio dividend income increased to $331,506 ($228,647), but was partly offset by charge for interest payable rising to $76,316 ($5,482).

There was also a marked improvement in income from the Manitoba farm lands which amounted to $68,616 ($36,838).

Earned surplus has been credited with $200,505 from refund from 1951 and 1952 income taxes less legal fees.

This arose from the successful appeal against the two years' tax assessment. The interest received on the tax refund amounted to $18,562.

Marketable securities were divided as follows: bonds and debentures—11.94%; stocks 88.06%.

These securities were distributed in groups broadly as follows:

	%
Oil & natural gas producers, refineries & distrib., incl. pipelines	26.48
Mining	19.09
Public utilities, incl. railways	18.12
Banks, finance & mortgage cos., etc.	14.51
Pulp & paper	7.00
Breweries & distilleries	5.14
Food	1.25
Miscellaneous	8.41

Company funded its $2 million line of credit from one of the chartered banks by issue of 4% debentures due January, 1961.

These are specifically secured on a portion of the investment portfolio.

As company is fully invested, it has been decided to make additional funds available for investment. It proposes to raise this additional capital through a rights issue to shareholders.

CONSOL. INCOME ACCOUNT

Years Ended Mar. 31:	1957	1956
Gross income	$463,823	$321,729
Add: Prof. sale assets	......	28,694
Less: Gen. & adm. exp.	121,108	90,274
Interest	26,959	......
Income tax	*38,744	15,465
Net profit	297,012	244,684
Less: Dividends	252,064	224,057
Surplus	44,948	20,627
*Includes foreign taxes.		
Earnings per Share and Dividend Record:		
Earned	$0.106	$0.087
Paid	0.09	0.08
Shares o/s at Mar. 31:		
Common, n.p.v.	2,800,714	2,800,714

CONDENSED CONS. BALANCE SHEET

As at Mar. 31:	1957	1956
Cash	$282,166	$296,504
Accts. receivable	27,563	23,086
Loans & advances	150,000	69,922
Other inv.	9,118,122	8,028,373
Other assets	98,518	79,387
Agree. for sale	139,308	150,001
Total assets	9,815,677	8,647,273
Bank loan	......	1,252,000
Accts. pay.	241,242	267,880
Prov. for taxes	27,967	3,919
Res. for unreal. prof.	47,841	51,735
Funded debt	2,000,000	......
Capital stock	2,671,678	2,671,678
Capital surplus	2,940,517	2,730,388
Earned surplus	1,886,432	1,869,673

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ANNOUNCEMENT

V. & B. Vice-President

R. W. MURDOCK

whose appointment as a vice-president of Vickers & Benson Ltd., has been announced by Rex H. Vickers, president. Mr. Murdock is widely experienced in advertising agency and allied fields in Canada and the United States. Director of planning and development of Vickers & Benson Ltd. for the past five years, Mr. Murdock has won many national and international awards for advertising achievement.

One View of Market

How Life Firms Traded Stocks

Canadian life insurance companies have investment of $85 million in Canadian stocks. As professional investors, their stock holdings and transactions carry wide interest.

As a service to its readers, FP presents here another in a series reporting on the holdings of individual companies, as well as changes in their portfolios of Canadian preferred and common stocks last year.

North American

North American Life Assurance Co., Toronto, in 1956 reduced its holdings of preferred stocks to 2% from 2.3% of total invested assets. Company increased its holdings of common stocks to 2.7% from 2.5%. Stocks were carried on its balance sheet at $10,880,197 at Dec. 31, 1956 ($10,306,692 at Dec. 31, 1955).

During the year in its holdings of Canadian stocks North American Life:

—Added three preferreds and two commons.

—Eliminated three preferreds.

—Increased holdings of one preferred and 26 commons.

—Reduced one preferred and one common.

Here are company's holdings of Canadian preferred and common stocks at Dec. 31, 1956, together with changes from the previous year.

	Shares Held at Dec. 31 1956	Change Since Dec. 31 1955
Preferred Stocks		
B. C. Electric, 4½%	400	......
Do., 4¾%	905	—395
Do., 5%	4,000	+2,000
B. C. Telephone, 6%	434	......
Abitibi P. & P., 4½%	....	—1,000
Acadia-Atlantic Sug., 5%	335	......
Aluminum Co., 4½%	3,250	......
Anglo-Cdn., P.&P., $2.80	1,000	......
Cdn. Fairbanks-M., 6%	500	......
Dom. Tar & Chem., $1	1,500	......
Dom. Textile, 7%	95	......
Du Pont of Can., 7½%	620	......
Fittings Ltd., A, 60c	2,000	......
Hughes-Owens, A, 80c	1,000	......
Do., 6.4%	1,000	......
Imp. Flo-glaze P., $1.50	2,000	......
Loblaw Groce., A	....	—2,440
Loblaw Cos., $2.40	2,435	+2,435
Do., A, 40c	976	+976
Loblaw Groce., $1.50	2,000	+2,000
Nat. Grocers, 7½%	3,500	......
Ogilvie Flour, 7%	300	......
Penman's Ltd., 6%	60	......
Tuckett Tobacco, 7%	....	—250
Zeller's Ltd., 4½%	800	......
Common Stocks		
Interprov. Pipe Line	400	+400
Pembina Pipe Line	350	......
Bell Telephone	1,600	+200
B. C. Power	800	+400
Consumers' Gas	15,000	......
Union Gas	300	+100
Aluminium Ltd.	2,315	......
Bailey-Selburn Oil	1,375	......
B-A Oil	7,500	—160
Building Products	2,025	......
Can. & Dom. Sugar	2,250	......
Cdn. Celanese	1,050	......
Cdn. Fairbanks-Morse	3,475	+200
Cdn. Industries	8,410	......
Cdn. Westinghouse	965	......
Cons. Mng. & Smeltg.	2,400	......
Cons. Paper	2,475	......
Dom. Bridge	1,200	+500
Dom. Foundries & Stl.	5,720	+520
Dom. Glass	3,400	+425
Dom. Oilcloth & Lino	1,860	......
Dom. Stores	750	+250
Dom. Tar & Chem.	6,500	+2,155
Dom. Textile	4,900	......
Du Pont of Can.	7,150	......
Ford Motor	800	+115
Fraser Cos.	2,600	+300
H. Smith Paper	2,200	+200
Hudson Bay M. & S.	1,315	+160
Imperial Oil	4,650	+825
Internat. Nickel	3,430	+50
MacMillan & Bloedel	550	+425
Moore Corp.	4,400	+300
Noranda Mines	3,200	+300
Ogilvie Flour Mills	1,170	......
Page-Hersey Tubes	1,300	+100
Penman's Ltd.*	2,625	+1,750
Powell River	2,000	......
Price Bros.	1,550	......
Prov. Engineering	2,000	......
Russell Indust.	5,800	+400
Southam Co.	2,200	+100
Steel Co.	10,500	+1,555
Triad Oil†	40,000	+40,000
Bk. of Montreal	5,000	......
Bk. of Nova Scotia	6,000	+1,000
Can. Perm. Mtge.	5,000	......
Cdn. Bank of Commerce	5,625	......
Imperial Bank	9,285	......
Royal Bank of Can.	6,500	+1,100
Toronto-Dom. Bk.	12,500	+1,000
Toronto Gen. Trusts	10,00	......

*Reflects three-for-one split.
†Conversion of debentures.

Company's invested assets at the year end consisted of 46.2% bonds, 42.2% mortgages, 4.8% policy loans, 4.7% stocks, and 2.1% real estate. An analysis of invested assets at the end of each of the last four years shows as follows:

	1956 %	1955 %	1954 %	1953 %
Bonds:				
Government	10.0	12.8	14.7	19.1
Municipal	9.9	9.2	8.8	8.5
Other	26.3	26.0	27.3	25.7
TOTAL	46.2	48.0	50.8	53.3
Mortgages:				
Farm	....	....	....	0.1
Urban	42.2	40.8	37.8	35.0
TOTAL	42.2	40.8	37.8	35.1
Policy Loans	4.8	4.7	5.0	5.0
Stocks:				
(a) Pref.	2.0	2.3	2.9	3.5
(b) Com.	2.7	2.5	2.4	2.3
TOTAL	4.7	4.8	5.3	5.8
Real Estate	2.1	1.7	1.1	0.8
Grand Total	100.0	100.0	100.0	100.0

Northern

Northern Life Assurance Co. of Canada, London, Ont., in 1956 reduced its holdings of preferred stocks to 1.3% from 1.5% of total invested assets. Company reduced its holdings of common stocks to 3% from 3.8%. Stocks were carried on its balance sheet at $1,588,608 at Dec. 31, 1956 ($1,803,977 at Dec. 31, 1955).

During the year, in its holdings of Canadian stocks, Northern Life:

—Added two commons.

—Eliminated three commons.

—Increased holdings of one common.

—Reduced one common.

Here are company's holdings of Canadian preferred and common stocks at Dec. 31, 1956, together with changes from the previous year.

	Shares Held at Dec. 31 1956	Change Since Dec. 31 1955
Preferred Stocks		
Anglo-Cdn. Tele., 4½%	500	......
Abitibi P. & P., 4½%	600	......
Aluminum Co., 4½%	2,000	......
Biltmore Hats, A	500	......
Monarch Knitting, 4½%	80	......
Nat. Grocers, $1.50	200	......
Zeller's Ltd., 4½%	500	......
Traders Finance, 5%	625	......
Common Stocks		
Aluminium Ltd.	1,000	......
Cdn. Oil	1,500	......
Dominion Stores	1,000	......
Imperial Oil*	1,470	+70
Internat. Nickel	1,500	......
Interprov. Pipe Lines	2,000	—1,000
John Labatt	....	—1,000
Noranda Mines	1,000	......
Penmans Ltd.	....	—300
Powell River	1,500	......
Stanleigh Uranium▲	1,000	+1,000
Steel Co.	400	+400
Teck-Hughes	....	—4,000

*Purchased through rights.
▲Bonus stock.

Company's invested assets at the year-end consisted of 39.3% bonds, 44.7% mortgages, 5.8% policy loans, 4.3% stocks, 5.3% real estate and 0.6% other. An analysis of invested assets at the end of each of the last four years shows as follows:

	1956 %	1955 %	1954 %	1953 %
Bonds:				
Government	18.7	23.8	27.9	29.9
Municipal	4.3	4.0	4.1	4.0
Other	16.3	13.3	13.1	11.0
TOTAL	39.3	41.1	45.1	44.9
Mortgages:				
Urban	44.7	44.1	41.4	42.6
Policy Loans	5.8	5.7	5.7	5.8
Stocks:				
(a) Pref.	1.3	1.5	1.5	1.3
(b) Com.	3.0	3.8	3.7	3.4
TOTAL	4.3	5.3	5.2	4.7
Real Estate	5.3	3.4	2.4	1.9
Other	0.6	0.4	0.2	0.1
Grand Total	100.0	100.0	100.0	100.0

Getting Ahead

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Next Lakes Water Move Up to Ike

Special Correspondence

WASHINGTON — The next move in the Great Lakes water diversion issue between Canada and the U. S. is up to President Eisenhower.

Negotiations between the two countries have broken off and when the diversion bill goes before Congress for the third time, the onus is on the president to use his veto to back Canadian objections.

Here is the background to the issue (**FP**, July 20):

- U. S. wants to divert an extra 1,000 cf of water into the Chicago waterway for sanitation and shipping.
- Canada contends any diversion would hurt shipping and power production.

While it seems certain the Senate will okay the measure again, the state department appears ready to urge the president to cast another veto.

However, there is considerable pressure by Chicago politicians for Ike to sign the bill. So the next move is the president's.

Clam Digger May Save 'Backaches'

MONTREAL (Staff) — Clam digging by hand—as anyone who has ever tried it will testify—is exceedingly laborious, back-breaking work.

But Atlantic coast fishermen who harvest clams, quahaugs and similar shell fish commercially may soon have their task lightened immeasurably by a current Fisheries Research Board experiment.

It's a mechanical shell fish digger which is being tested off the shores of Prince Edward Island in the Governor's Island area.

Designed to be attached to the side of a very shallow-draught boat, the combination digging and escalator device brings shell fish from the ocean bed and lands them on the vessel's deck.

Lower part of the device is a shovel-like affair which bites into the ocean bottom as the boat moves ahead, dislodging sand, clams and whatever else comes across its path.

Clams and other shell fish rooted up by the shovel are washed onto the escalator by high pressure water jets. In addition to moving the shell fish onto the escalator, the water jets also serve to separate them from sand and rubble.

As rigged at present, the device permits digging in water up to a maximum depth of six feet and minimum depth of just over 22 in., the draught area of the boat.

If the device proves commercially feasible, it would extend the range of shell fish beds farmed at present as it would permit working of areas outside of the low water mark which is the deadline for hand digging.

Here are clues to profit

A businessman's judgment is no better than his information. You can profit from Canada's bustling growth — as other businessmen do — through The Financial Post. Here is Canada's most comprehensive business news service. Every week, The Post helps you gauge the swing of business and investments. It helps you plan with confidence, make sound decisions. In brief, it helps you make more money because it helps you anticipate trends and developments across the nation. Yearly by mail in Canada, $6; elsewhere $7 yearly.

Consolidated Balance Sheet of

CANADA PACKERS LIMITED

(Incorporated under the laws of Canada)

March 27th, 1957

ASSETS

Current:	
Cash on hand	$ 90,201
Trade accounts receivable (after provision for losses)	21,096,907
Inventories:	
Products, materials and supplies on hand, in transit and committed for—as determined and certified by the management and valued at the lower of cost or market, less reserve of $6,000,000	39,391,409
Life insurance (cash surrender value)	306,450
Prepaid expenses	984,092
Sundry advances and balances receivable	976,194
TOTAL CURRENT ASSETS	$ 62,845,253
Investments in securities—at cost less amounts written off	644,174
Land, buildings, plant and equipment—at cost or at depreciated appraisal values for assets appraised in the years 1919 to 1927	62,739,475
Less accumulated depreciation	38,042,285
	$ 24,697,190
Goodwill	1
	$ 88,186,618

LIABILITIES

Current:	
Borrowings from banks	$ 13,708,125
Liability to banks for cheques issued but not yet cashed	10,055,180
Accounts payable and accrued charges	14,301,014
Provision for income, sales, municipal and other taxes	4,263,232
Dividends on Class A and Class B shares payable April 1, 1957	1,050,000
TOTAL CURRENT LIABILITIES	$ 43,377,551
Surplus on appraisals	5,663,432
Interest of minority shareholders in subsidiary companies	650,937
Capital:	
Authorized and issued— 400,000 Class A shares of no par value; 800,000 Class B shares of no par value	1,438,284
Earned surplus	37,056,414
	$ 88,186,618

Statement of Consolidated Earned Surplus

(FOR THE YEAR ENDED MARCH 27, 1957)

Balance at credit, beginning of year	$ 34,649,908
Net profit for the year	4,506,506
	$ 39,156,414
Less two dividends of 87½c per share on Class A and Class B shares	2,100,000
Balance at credit, end of year	$ 37,056,414

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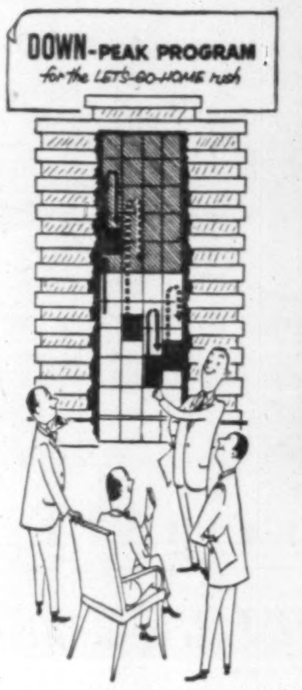

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New Ideas for Manufacturing Speed Production, Cut Costs

New manufacturing ideas ranging from a 60 mph hydrofoil speedboat to a treatment of milk to allow prolonged storage are included in the latest list compiled by the Industrial Development Branch of the Department of Trade and Commerce.

Further information on announcements listed under item numbers can be obtained from B. R. Hayden, director of the Industrial Development Branch in Ottawa.

Those identified by case numbers should be followed up through Canadian Patents & Development Ltd., National Research Building, Sussex Street, Ottawa.

Cash Recorder

This device records individual quantities and sales on paper tape, for complete and accurate accounting of all gasoline sales. It also provides a total dollar meter on the pump. All those individual trips to the cash register are eliminated, improving service as well as accounting practice. This Canadian invention is available for manufacture under license and inquiries will be forwarded to the patent owners.—Item No. 930.

Hydrofoil Speedboats

The results of 20 years' development and service of hydrofoil launches are now available under license from a Swiss firm. A variety of sport, coast guard, and passenger models have been built and operated in Europe, ranging from one to 80 tons displacement, and from 35 to 60 mph top speed. Other models can be developed to take full advantage of the North American market.

These boats run above the water, rather than in it. After reaching "take-off" speed, the hull leaves the water and rides on two sets of short "wings" or hydrofoils located fore and aft beneath the boat. With hull friction and the braking action of the waves eliminated, considerably higher speeds are attained with fuel and power economies. Remarkable stability and ease of handling even at high speeds in rough water are claimed to have been developed in these designs. An illustrated booklet with performance data is available on loan.—Item No. 931.

Boring Machines

An Australian firm has developed a portable machine for boring under roadways, instead of trenching, for the installation of cables, conduits and pipes. Many of the best features of their rock drilling post hole digger have been incorporated in this machine which has already demonstrated these advantages for utility companies: (a) no damage to roads or repaving costs, nor interference with traffic, (b) the machine soon pays for itself in savings of excavation costs, and (c) a tractor with power take off and two men can easily operate and transport the machine with its rubber-tired trailer.

The manager of the Australian firm invites inquiries from Canadian manufacturers, and contemplates visiting Canada at a later stage. A sales bulletin and performance records are available on loan from the Department in Ottawa.—Item No. 932.

Sprung Tiller

A rugged tractor-drawn implement for tilling, particularly in rough ground, has been developed in Southern Rhodesia. The plows or ridging shoes are spring controlled after the style of the Australian "stump-jump" implements. On striking firm obstacles, such as stumps or rocks, the shoe is forced back out of the ground and immediately after passing the obstacle, the springs re-engage the shoe in the tilling position. The patent and production rights for Canada and the U. S. A. are offered for negotiation. Photographs and descriptions are available on loan.—Item No. 933.

Pneutractor

A Brazilian firm is seeking an affiliate to produce its "Pneutractor" in Canada. This is a traction strip with lugs, which fastens and wedges in between dual truck tires, to give better traction in mud or loose sand and gravel. The strip fits between the tires in much the same way as a V-belt on a pulley. The Pneutractor is quickly mounted or removed, a single nut joining the two ends of the strip. Leaflets available.—Item No. 934.

Electrical Instruments

A German manufacturer of ammeters, voltmeters, frequency, power factor and kilowatt indicating meters is seeking a licensee to produce these instruments in Canada. Catalogue available on loan.—Item No. 935.

Enquiries about the following items should be sent to Canadian Patents & Development Ltd., National Research Building, Sussex Street, Ottawa.

Treatment of Milk

A method of treating milk and cream which enables it to be stored in the frozen condition for relatively long periods without deterioration due to fat or casein separation. The thawed milk is indistinguishable from fresh milk even after several months storage. —Case No. 2090.

Leak Detector

A portable, fast response instrument capable of detecting, locating, and measuring the rate of even very small vapor leaks in pipes and vessels while in service. This instrument is highly desirable to locate even the smallest leaks, especially in systems carrying expensive and dangerous fluids. Water vapor leaks as small as 5cc per day can be measured.—Case No. 1869.

Ionization Gauge

An improved ionization vacuum gauge in which the function of electron emission is reserved solely to an auxiliary cold electrode while the collection of positive ions within an ionization space is solely performed by a separate electrode. A strong magnetic field applied along the axis of the device causes the electron paths to become spiral and lengthen which results in high ionization efficiency and sensitivity. The gauge has greater sensitivity than existing gauges.—Case No. 1951.

Pressure Valve

A valve for stabilizing the pressure in a hydraulic system despite fluctuating supply pressures, also compensating for pressure build-ups in the line downstream from the regulating valve.—Case No. 1929.

Portable Welder

A portable welding gun which may be fired automatically when the electrode engages the work with a predetermined pressure, or it may be fired by means of a manual trigger regardless of the pressure. The operator may select either firing means and both can be locked so that the gun cannot be fired accidentally.—Case No. 1947.

New Omegatron

An improved mass spectrometer which uses a collector system employing two electrodes spaced so that only resonant ions with an increasing spiral orbit are measured. This arrangement gives improved resolution with high mass numbers and allows the use of smaller magnetic fields and other components since separation can be made in fewer cycles of orbital travel. The device can also be used as a normal omegatron for lower mass numbers.—Case No. 1970.

Electrochemical Analysis

An improved electroanalyser for making laboratory determinations of copper, nickel and other metals by electrolytic methods. The arrangement for supporting the electrodes provides for easy adjustment and removal and protection against corrosion of the electrical contacts due to splashing of the electrolyte. This instrument is very simple in construction, easy to operate and low in initial cost. One of its most important features is that it is very easy to clean.—Case No. 1684.

Recovery of Starch

With present known processes of recovering starch from wheat, about 30 or 40% of the starch is lost in a slimy sludge known as "squeegee" starch. The "squeegee" starch has been found to contain a hydrophilic pentosan gum, in which the starch granules are entrained. In the present process the starch is recovered from the pentosan gum by degrading the gum with an enzyme. Recoveries up to 93% have been achieved.—Case No. 1615.

Resists Shrinking

This invention was developed in the Wool Textile Research Laboratories of the Commonwealth Scientific and Industrial Research Organization, Australia. The process is especially useful in the treatment of materials composed wholly or partly of wool or other animal fibres, to reduce the tendency of such materials to shrink and to increase the wearing life of the fabrics. The treatment does not damage the wool or harm other fibres, nor is there any effect on appearance. The process does not make any heavy demands on labor nor does it involve any elaborate or expensive equipment.—Case No. 1626.

$17 Million Flare Gas Plan Okayed

From Our Own Correspondent

CALGARY — A $17 million scheme for processing flare gas in the Pembina oil field was approved by the Alberta Oil and Gas Conservation Board last week.

Last winter the board and some 30 Pembina operators broached on a plan to save the natural gas which was burned and wasted when coming up to the surface with the oil.

The operators had **H. W. Bass & Sons** of Houston investigate a scheme to utilize this flare gas. Bass, through its subsidiary **Goliad Ltd.**, proposed, in its application, to build pipeline grids and processing plants.

It would mean the splitting up the field into nine areas, each with its own compressor station to liquefy the propane, butane and pentane in the natural gas.

A pipeline grid would connect each compressor station with well heads in its area.

Other pipelines would be connected with compressor stations to a central fractionation plant where the components would be separated.

A trunk line would carry the products to the nearest rail line. The project would be completed sometime in 1959.

Several Pembina producers indicated they would not be a party to such a plan. These include **Imperial Oil Ltd., Texaco Exploration Co., B.A.,** and **Tennessee Gas Transmission Co.**

Reason advanced by one company spokesman was that the division of responsibilities in operating the natural gas gathering systems and the liquid gathering system could lead to inefficiencies.

Imperial Oil objects mainly to financial aspects of the undertaking, is not against the broad outlines of the proposal itself particularly. Imperial does not like being a party to a guaranteeing group on a $5 million loan to the operator.

The company also thinks the 8% interest rate charge on the loan unnecessarily high.

The refusal of the above companies, however, is not necessarily a blow to the scheme. Companies could still sell their gas to Bass without becoming a party to the pact.

SEC Reports Stock Trading

Among changes in security holdings reported by the U. S. Securities & Exchange Commission, covering reports filed with the SEC in June by company officers and directors, were the following:

H. H. Richardson, officer and director, sold 1,200 shares of **Aluminium Ltd.,** reducing his holding to 6,000 shares at the end of May.

M. B. De S. Pernes, director, bought 7,000 shares of **Aluminium Ltd.,** through exercise of options, increasing his holding to 7,003 shares at the end of May.

M. J. Boylen, officer, bought 11,500 shares of **Anacon Lead Mines** in April and 2,400 shares in May, increasing his holding to 618,700 shares at end of month.

Harold A. Smith, director, held one Class A share of **Bailey Selburn Oil & Gas** at the end of May. A holding company in which he holds an interest held 35,092 shares, acquiring 5,000 shares during month.

Canadian Petrofina acquired 677 shares of **Calvan Consolidated Oil & Gas,** increasing its holding to 4,383,186 shares at end of month.

G. L. McMahon, director, sold 43,775 shares of **Canadian Atlantic Oil,** reducing his holding to 10,000 shares at the end of April.

N. R. Whittall, director, bought 5,000 shares of **Canadian Atlantic Oil,** increasing his holding to 9,000 shares at the end of April.

H. R. Bolton, director, bought 100 shares of **Canadian Homestead Oils** which represented his entire holding at the end of May.

C. L. Follansbee, director, bought 100 shares of **Canadian Homestead Oils** which represented his entire holding at the end of May.

W. F. Styler, Jr., director, bought 100 shares of **Canadian Homestead Oils** which represented his entire holding at the end of May.

C. E. Wright, director, acquired 86,900 shares of **Canadian Homestead Oils** which represented his entire holding at the end of May. He received these shares in exchange for stock of **Pennant Drilling.**

Leonard Dickson, director, held 4,510 shares of **Charter Oil** at the end of April. A partnership in which he holds an interest acquired 25,000 shares through exercise of options. This represented its entire holding at end of month.

G. E. Young, officer, sold 2,000 shares of **Crown Zellerbach Corp.** reducing his holding to 2,000 shares at the end of April.

D. S. Beatty, director, bought 900 shares of **Devon-Palmer Oils,** increasing his holding to 6,051 shares at the end of May.

J. L. Loeb, director, held 20,000 shares of **Dome Exploration (Western)** at the end of May. A trust in which he holds an interest sold 1,600 shares, reducing its holding to 12,000 shares at end of month.

A. H. Meadows, officer and director, bought 500 shares of **Fargo Oils,** increasing his holding to 4,000 shares at the end of May. **General American Oil Co. of Texas,** in which he holds an interest, held 1,250,308 shares at end of month.

Harold Boeschenstein, officer, bought 400 shares of **Ford Motor Co.,** increasing his holding to 500 shares at the end of March.

B. D. Mills, officer, acquired 1,125 shares of **Ford Motor Co.** through exercise of options, increasing his holding to 10,200 shares at the end of May.

R. C. Tait, officer, bought 7,500 shares of **General Dynamics,** increasing his holding to 23,925 shares at the end of May.

R. M. MacRae, officer and director bought 1,200 shares of **Granby Consolidated Mining, Smelting & Power,** increasing his holding to 2,200 shares at the end of May.

J. S. Nye, director, bought 500 shares of **Granby Consolidated Mining, Smelting & Power,** increasing his holding to 1,500 shares at the end of May.

W. H. Atkinson, officer, bought 1,000 Class B shares of **Home Oil** through exercise of options. This represented his entire holding at the end of May.

E. F. Davis, officer, bought 9,000 Class B shares of **Home Oil** through exercise of options. This represented his entire holding at the end of May.

B. B. Dayton, director, bought 100 shares of **Minnesota & Ontario Paper,** increasing his holding to 300 shares at the end of May.

Loblaw Groceterias bought 6,700 shares of **National Tea,** increasing its holding to 718,757 shares at the end of April.

H. S. Krusen, director, bought 200 shares of **New British Dominion Oil,** increasing his holding to 300 shares at the end of May.

G. H. Johnson, officer and director, sold 43,900 shares of **Nickel Rim Mines,** reducing his holding to 100 shares at the end of May.

W. N. Graburn, officer and director, sold 100 shares of **Pacific Petroleums,** reducing his holding to one share at the end of April.

A. C. Andrew, officer and director, held 1,000 shares of **Patino of Canada** at the end of May. He bought 2,500 shares during month and sold 1,500 shares.

G. Ehrlich, officer, held 700 shares of **Patino of Canada** at the end of May. He bought 2,500 shares during month, sold 1,500 shares and gave 300 shares as a gift.

C. G. Beavers, Jr., director, sold 7,000 shares of **Pressed Metals of America,** reducing his holding to 3,955 shares at the end of April.

W. H. Bouck, officer and director, bought 1,000 shares of **Preston East Dome Mines,** increasing his holding to 9,000 shares at the end of April.

Rio Tinto Mining Co. of Canada subsidiaries bought 13,800 shares of **Preston East Dome Mines,** increasing holdings to 418,559 shares at the end of April.

A. E. Smith, officer, bought 500 shares of **Texas Calgary Co.,** increasing his holding to 5,500 shares at the end of May.

C. C. Cross, director, held 28,754 shares of **Trans Empire Oils** at the end of March. He bought 1,900 shares in February, and 238 shares in March, sold 21,700 shares in March and gave 4,000 shares as a gift.

William Zeckendorf, officer and director, bought 8,600 shares of **Webb & Knapp Inc.,** increasing his holding to 4,740,180 shares at the end of May.

Canadian Petrofina bought 400 shares of **Western Leaseholds,** increasing its holding to 6,747,567 at the end of March.

Borden Chemical Building Plant Near Toronto

A new $400,000 chemical plant of **Borden Chemical Co. (Canada)** at West Hill, a Toronto suburb, will start producing adhesives, coatings and other chemical compounds this fall.

The new plant will produce adhesives and coatings for paper converting and other uses; textile and carpet backings and adhesives and such maintenance materials as under-coating for cars, and asphalt emulsions and cutbacks for driveways.

The plant has been designed to permit expansion and diversification into other chemical products.

Borden Chemical Co. (Canada), until recently known as **American Resinous Chemical of Canada,** has applied for amended letters patent. It is a subsidiary-sister to the **Borden Co. of Toronto,** which has processed and distributed dairy products and other foods in Canada since 1899.

Borden Chemical is now a wholly owned subsidiary of **Borden Co. of New York.**

Smelters Closes High-Cost Mines

MONTREAL (Staff) — Due to high operating costs coupled with the low prices of zinc and lead presently prevailing, **Consolidated Mining and Smelting Co. of Canada** has closed down its Tulsequah mine in northern British Columbia and open pit operations at the Sullivan mine in the southeastern part of the province.

The two shutdowns will mean a reduction in mine output of zinc amounting to 20,000 tons annually or about 10% of the company's total annual production. In addition substantial tonnage of lead—though less than the 20,000 tons of zinc—will also be lost.

The company says it would reopen the two properties if lead-zinc markets firmed. No further shutdowns are contemplated at present.

LABOR AND THE LAW

Boss Was Badly Shaken, Worker Quickly Sacked

Significant rulings in the broad field of labor law are reviewed in this regular FP feature.

When you scare the boss out of 20 years' growth, you can expect trouble. And that's exactly what this truck-driver got.

The trucker — call him Phil — was driving westward from Montreal on a two-lane highway when he swung out to pass an automobile.

Thundering toward him was another truck owned by the same company. There was no accident. It was avoided because the other trucker applied his brakes and took to the shoulder of the road.

The two trucks stopped some distance apart, then continued on without any contact between their drivers.

What Phil didn't know was that driving the other truck was the secretary-treasurer of the company. He was accompanied by the Oshawa, Ont., terminal manager. They were understandably unnerved by the near-accident.

When Phil got to the end of his run, word had already arrived by teletype. He was fired.

He thought the penalty too severe and so did his union. They took it to an arbitrator for binding decision, as was their right under the contract between the union and the firm.

The company's case for dismissal was short and simple: Phil had driven in an extremely dangerous manner. It was no thanks to him that a death-dealing head-on smashup had been avoided.

But Phil had some explanations to make.

He said he had advised the company in Montreal that his trailer brakes were not working, yet was allowed to make the trip. (Other witnesses said there had been other times when the company hadn't taken trucks out of service when trailer brakes needed attention.)

And he claimed that he had been forced to swing out to pass the car because his tractor brakes also had failed to work. The car had applied its own brakes, leaving him no choice.

Phil said he had stopped twice after the incident because of worry about his brakes.

The arbitrator ruled that the evidence had shown Phil guilty of undue haste during the trip prior to the incident. With 20 years' driving experience, he "should have exhibited better judgment."

Yet the company had failed to take the vehicle out of service in Montreal, when it knew the trailer brakes weren't working.

And there had not actually been an accident.

Since Phil had offered an explanation which partly excused his actions — and there was no proof the explanation was untrue —he should not lose his job.

But since he had driven irresponsibly, he should be punished with a six-week suspension.

Source: P. 134, Vol. 7, Labor Arbitration Cases (1957) published for Central Ontario Industrial Relations Institute by Cartwright & Sons Ltd., Toronto, 31-5-57.

National Tea Buys Council Oak Chain

National Tea Co., Chicago (32.8% controlled by **Loblaw Groceterias Co.,** Toronto), has acquired control of **Council Oak Stores,** Sioux City, Iowa.

Council Oak has a chain of 85 stores in Iowa, Minnesota, Nebraska, and South Dakota.

This will give National a total of 869 stores operating in 19 states. Purchase is expected to increase its sales by about $30 million, from total sales of $617.6 million in 1956.

The purchase involved a share exchange whereby National has issued an additional 48,720 common shares for Council Oak's 6,496 shares, on basis of 7½ National shares for each Council Oak share. At year-end National had 2,132,910 shares outstanding.

We now have available a limited number of booklets outlining the history and development of Canadian Husky Oil Ltd. Containing, in particular, information on Canadian Husky's recently acquired increased acreage and additional funds, this booklet provides details on one of Western Canada's latest major gas fields . . . SAVANNAH CREEK.

For your complimentary copy of this booklet

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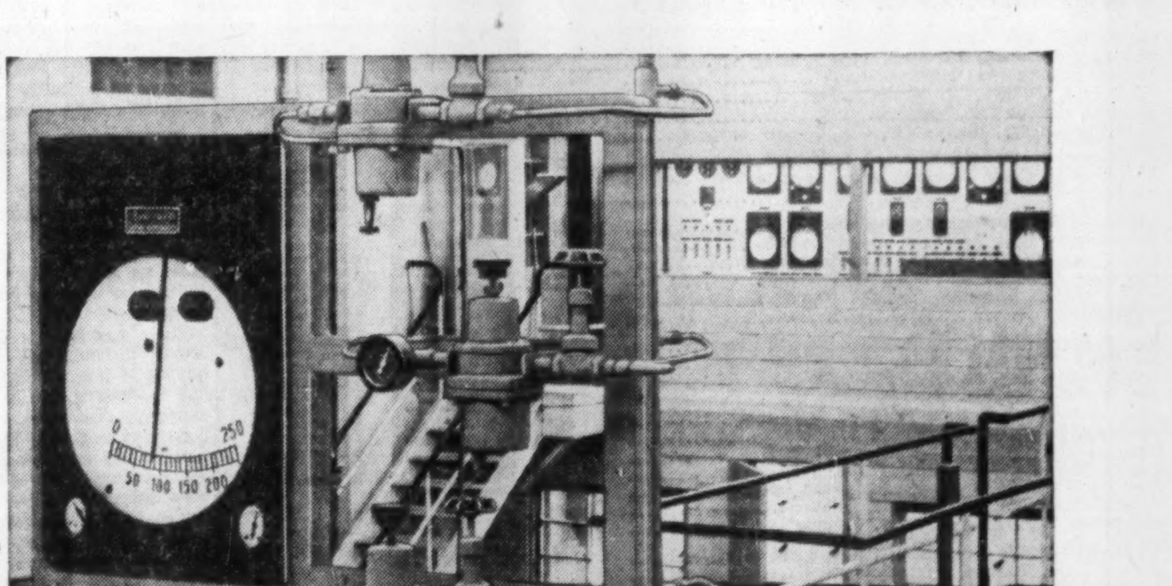
GREAT-WEST LIFE APPOINTMENTS

H. E. HARLAND, F.S.A. — ISAAC ROSENBERG, F.S.A. — A. M. SUTHERLAND, F.S.A.

Three promotions, affecting the Actuarial and Group divisions of The Great-West Life Assurance Company, have been announced by D. E. Kilgour, General Manager.

H. E. Harland, F.S.A., has been advanced from Actuarial Assistant to Assistant Actuary, while Isaac Rosenberg, F.S.A., and A. M. Sutherland, F.S.A., have both been advanced from Group Actuarial Assistants to Assistant Group Actuaries.



View of the Causticizer Building which houses the most modern Causticizer in North America. Wash temperature transmitter is seen in foreground.

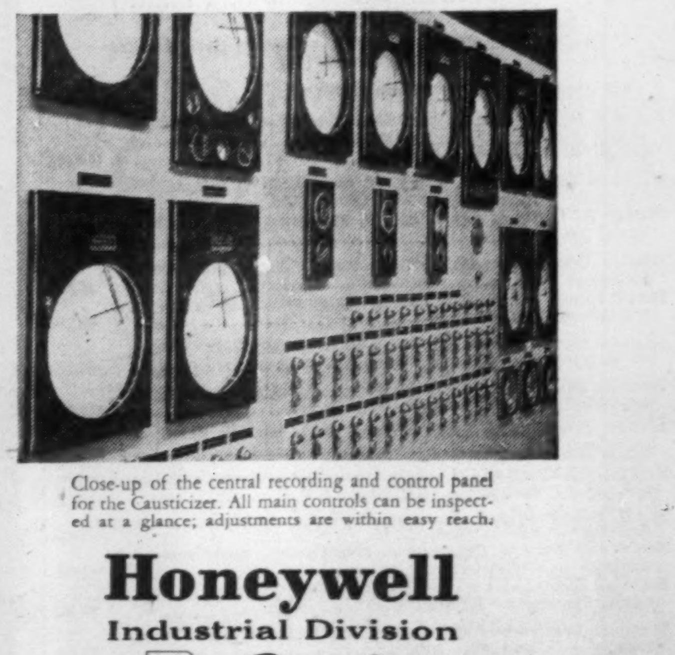
Dryden Paper Company modernizes with Honeywell Customized Instrumentation

As a first step in this major expansion program, Dryden installed the most modern causticizer in North America. To control and check the operation of this complex processing equipment Honeywell engineers in co-operation with Dryden staff engineers, developed a highly specialized system of instrumentation.

A central Honeywell panel, incorporating remote control and automatic temperature adjustment, governs the entire causticizing section. Wash water temperature and the temperature of green liquor flowing to the slaker are also checked and regulated from this panel. For some circuits, a system of signal lights has been devised to warn the operator if these phases of the process are functioning inefficiently.

The Dryden installation is another successful case history added to Honeywell's vast experience in the pulp and paper industry.

If your own operations include such critical variables as flow, temperature, pressure, liquid level, pH, conductivity, humidity or specific gravity . . . Honeywell can show you advanced methods for measuring, controlling and recording all these factors quickly and accurately. For information write to Honeywell, Toronto 17, Ontario.



Close-up of the central recording and control panel for the Causticizer. All main controls can be inspected at a glance; adjustments are within easy reach.

Honeywell

Industrial Division

Brown Instruments

Defense Contracts

Defense contracts totaling $10,459,960 have been awarded to Canadian firms during the last half of June by the Department of Defense Production and Defense Construction (1951) Ltd.

The Department of Defense Production awarded 136 contracts. The largest contract, $1,794,628, was placed with **Fruehauf Trailer Co. of Canada** of Weston, Ont., for refuelling trucks. A number of contracts for supply of coal were awarded. **Great West Coal Co.,** of Brandon, Man., received four contracts totalling $425,148.

Some 15 contracts for $10,000 or more, amounting to $1,354,016, were placed by Defense Construction (1951) Ltd. The largest, for $557,476, was awarded to **Burns & Dutton Concrete and Construction Co.** of Edmonton for a unit supply building, a dental clinic extension to hospital and a garage at Cold Lake, Alberta.

Here's the list of contracts $10,000 and over. It omits anything on the secret list.

Contractor	Commodity	Value
Abbott Lab. Ltd., Montreal	medical supplies	$ 15,500
Aviation Elect. Ltd., Montreal	instrument test equipment	11,095
Aviquipo Ltd., Montreal	aircraft spares	12,480
Aviquipo Ltd., Montreal	aero engine spares	10,812
Wm. A. Ball, Meaford, Ont.	coal	10,445
Bell Telephone Co., Ottawa	telephone maintenance	405,000
Blue Ribbon Ltd., Winnipeg	coffee	29,372
Boosey & Hawkes Ltd., Toronto	musical instruments	26,746
B.A. Oil Co., Toronto	diesel fuel oil	45,280
Bruce Coal Co., Ottawa	coal	55,285
Burns & Co., Winnipeg	meat	25,258
B.V.D. Co., Montreal	clothing	10,025
Canada Bread Co., Toronto	bread	13,920
Canada Packers Ltd., Edmonton	meat	26,090
Canada Packers Ltd., Halifax	meat	41,373
Canada Packers Ltd., Saint John, N.B.	dairy products	56,187
Canada Packers Ltd., Toronto	meat	32,575
Canadair Ltd., Montreal	aircraft instrument spares	262,900
Cdn. Arsenals Ltd., Ottawa	electronic equip. testing	184,000
Cdn. Arsenals Ltd., Ottawa	small arms design	120,000
Cdn. Blower & Forge Co., Montreal	ships' machinery	93,950
Cdn. Cotton & Wool Co., Montreal	mopheads	14,396
Cdn. Cottons Ltd., Montreal	treatment of cloth	18,125
Cdn. Import Co., Quebec	coal	121,971
Cdn. Industries Ltd., Montreal	plastic sheeting	25,143
Cdn. Kodak Sales, Toronto	photographic supplies	34,515
Cdn. Marconi Co., Montreal	instrument test equip.	10,973
Cdn. Pratt & Whitney, Longueuil, Que.	propeller repair	45,000
Cdn. Pratt & Whitney, Longueuil, Que.	electrical equipment	49,944
Cdn. Pratt & Whitney, Longueuil, Que.	aero engine repair	118,000
Canmore Mines Ltd., Canmore, Alta.	coal	52,380
City Laundry Ltd., Kingston, Ont.	laundry services	36,000
Computing Devices Ltd., Ottawa	electronic equip. repair	19,200
Computing Devices Ltd., Ottawa	aircraft instrument repair	10,000
Contractors Service Ltd., Leaside, Ont.	bridging components	48,337
Control & Metering Ltd., Toronto	ships' machinery spares	16,576
Cornwallis Dairy Ltd., Kentville, N.S.	dairy products	15,563
Crothers Mfg. Ltd., Scarborough, Ont.	electrical equipment	10,411
Darling Bros. Ltd., Montreal	ships' machinery repairs	10,183
Dominion Coal Co., Moncton, N.B.	coal	208,170
Dominion Rubber Co., Montreal	parachute shipping boxes	27,040
Eastern Bakeries Ltd., Saint John, N.B.	bread	22,179
Electromechanical Prod., Agincourt, Ont.	electronic test equip.	90,000
Fairey Aviation Co., Dartmouth, N.S.	electronic equipment	14,670
Ford Motor Co., Toronto	motor vehicles	26,160
Ford-Smith Machine Co., Hamilton, Ont.	grinding machines	14,181
Fredericton Propane Gas Co., Fredericton, N.B.	propane gas	22,410
Fruehauf Trailer Co., Weston, Ont.	refuelling trucks	1,794,628
Gas Propane Sept-Iles Enr., Sept-Iles, Que.	propane gas	14,300
General Fireguard Corp., Windsor, Ont.	fire fighting equip.	20,215
General Motors, Oshawa, Ont.	automotive spares	11,270
General Tire & Rubber Co. of Can., Welland, Ont.	development in connection with anti-gas respirator programme	27,135
J. Gradek Woodwork Enrg., St. Eustache, Grande Fresniere, Que.	wooden ammunition boxes	12,799
Gray Coach Lines, Toronto	transportation	36,000
Great West Coal Co., Brandon, Man.	coal	424,148
Halliday Fuels Ltd., Toronto	coal	96,390
M. A. Hanna Co., Toronto	coal	221,000
Imperial Mops & Brooms Ltd., Montreal	mopheads	11,912
Imperial Oil Ltd., Ottawa	aviation gasoline	167,747
Imperial Oil Ltd., Ottawa	diesel fuel oil	415,000
Imperialle Fuels Ltd., London, Ont.	coal	195,031
Instronics Ltd., Stittsville, Ont.	frequency meters	170,277
Inter. Packers Ltd., Saskatoon	meat	10,141
IBM Co., Ottawa	office machine rental	69,883
Intra Medical Prod., Toronto	medical supplies	253,516
Kearney Bros. Ltd., Montreal	coffee	11,943
Kendall Co. Ltd., Toronto	medical supplies	14,814
Lakeview Dairy Ltd., Barrie	dairy products	39,425
La Laiterie Granger, St. Jean, Que.	dairy products	15,910
Legrade Inc., Quebec	meat	10,543
Machine Prod. Corp., Montreal	warehousing equipment	59,506
Machine Prod. Corp., Montreal	lockers	12,464
McGill University, Montreal	research contract	30,450
McGregor Shirt Co., Hamilton, Ont.	clothing	10,723
Modern Packers Ltd., Montreal	meat	21,192
Mongeau & Robert Cie, Montreal	coal	50,717
Montreal Cottons Ltd., Montreal	cloth	74,935
Muskoka Laundry, Bracebridge, Ont.	laundry services	54,000
N. Electric Co., Ottawa	electrical equipment	10,511
N. Petroleum Corp., Kamsack, Sask.	diesel fuel oil	122,759
Northland Coal, Ice, Winnipeg	coal	108,600
Pacific Petroleums, Calgary	gasoline	12,090
Palm Dairies Ltd., Edmonton	dairy products	10,956
Patlon Aircraft Ltd., Toronto	aircraft spares	19,449
Petawawa Cleaners, Petawawa, Ont.	laundry, cleaning	49,500
P.S.C. Applied Research, Toronto	aircraft instrument test equipment	118,080
Rly. & Power Eng. Corp., Montreal	aircraft spares	11,683
Remington Rand Ltd., Ottawa	office machine rental	94,494
Reschke Coal, Fort St. John, B.C.	coal	71,299
Rex Machine Tool Co., Toronto	lathes and attachments	25,230
James Richardson & Sons, Kingston, Ont.	coal	41,916
Robertson Bros. Ltd., Chilliwack, B.C.	coal	71,504
Roblin Dairy, Belleville, Ont.	dairy products	11,596
Rogers Montreal Ltd., Montreal	coal	196,586
Ross-Smith Co., Montreal	aircraft towed target gear	201,763
Roxalin of Canada Ltd., Toronto	paint	14,246
Rubenstein Bros. Ltd., Montreal	clothing	21,991
W. H. Schwartz & Sons, Halifax, N.S.	coffee	53,532
Shell Oil Co., Toronto	aviation gasoline	21,890
Shell Oil Co., Toronto	petroleum	30,966
Silverwood Dairies Ltd., Edmonton	dairy products	12,000
Jas. Sowards Coal Co., Kingston, Ont.	coal	58,506
Spartan Air Services, Ottawa	helicopter repair	10,000
Standard Oil Co., Vancouver	diesel fuel oil	95,404
Standard Tel. & Cables, Montreal	electronic equipment	33,120
Superior Airways Ltd., Fort William	aircraft starting facilities	10,000
Swift Canadian Co., Edmonton	meat	13,372
Swift Canadian Co., Halifax	meat	34,101
Swift Canadian Co., St. Boniface, Man.	meat	17,011
Swift Canadian Co., Saint John, N.B.	meat	17,680
Sydenham Dairy, Alviston, Ont.	dairy products	16,266
Manson L. Thomas, Berwick, N.S.	coal handling	13,478
Trenton Steel Works Ltd., Trenton, N.S.	development contract	40,000
Weaver Coal Co., Montreal	coal	408,691
Western Flyer Coach Ltd., Winnipeg	spare parts for buses	13,122
A. R. Williams Mach., Vancouver	drilling machine	19,818
Winnipeg Supply & Fuel Co., Winnipeg	coal	33,960

Contracts awarded by Defense Construction (1951) Limited June 16 - 30, 1957

Contractor	Work Description	Value
Burns & Dutton Concrete & Construction Co., Edmonton	unit supply building, dental clinic extension to hospital and garage — Cold Lake, Alta.	$ 557,476
Canadian Comstock Co., Winnipeg	conversion of heating installation in barrack blocks — Gimli, Man.	29,177
George A. Crain & Sons, Ottawa	armament buildings, Uplands, Ont.	257,933
Dibblee Construction Co., Ottawa	resurfacing of sidewalks—Petawawa, Ont.	36,051
Durall Limited, Winnipeg	installation of steam convectors in hangars—Winnipeg, Man.	38,794
Grinnell Co. of Canada, Montreal	automatic sprinkler system at warehouses—Valcartier, Que.	14,720
Peter Leitch Construction Ltd., Winnipeg	extension to standard supply building—Rivers, Man.	102,600
Modern Construction Ltd., Moncton, N.B.	barrack block — Moncton, N.B.	110,392
Newton Construction Co., Sherbrooke, Que.	respirator fitting and testing chamber — Gagetown, N.B.	10,720
M. F. Schurman Co., Summerside, P.E.I.	dangerous goods building — Renous, N.B.	52,140
Shore and Horwitz Construction Co., Ottawa	renovation of windows — Ottawa	11,960
Standard Paving Maritime Ltd., Halifax, N.S.	grading and asphalt paving — Halifax, N.S.	21,482
Terminal Construction Co., Ottawa	sports fields, grading and seeding — Cold Lake, Alta.	57,668
United Nail & Foundry Co., St. John's, Nfld.	conversion of heating installation in married quarters—St. John's, Nfld.	17,336
Vandervoort Plumbing & Heating Ltd., Kingston, Ont.	alteration to boiler room — Kingston, Ont.	35,567

Market Comment

What stocks and bonds are doing and what prominent observers say

Stock market atmosphere has deteriorated in the last two weeks reflecting further signs of a slowing-down in industrial tempo. Although many influential Canadian and U. S. business and government authorities are forecasting a heartening pick-up in incoming orders this fall, there appears a growing concern among the investment community that the so-called pick-up may fall short of expectations.

The gradually sinking markets have still to attract any worthwhile new buying. All the recently popular stock groups — gas and oil pipelines, gas utilities, senior oil companies, etc. — are still under selling pressure. At the same time there is little evidence of any important switching out of these issues into other more defensive groups.

Selling is still relatively light — even in Monday's six-point break in New York. It must also be remembered we are in the midst of the usual seasonal summer doldrums period for stocks.

* * *

A. G. PLAXTON; Intercity Securities Corp. (Toronto)

The spread between bond and stock yields is now at the lowest point for some years. This is a hard fact which should bring more and more pressure on the prices of low-yield stocks which have been selling at high multiples of current and prospective earnings.

So far, tight money has apparently not been too effective in slowing down expansion, with the important exception of residential building. Consumer prices have continued to rise as wages have been increased with commensurate increases in production.

However, some signs of weakness are appearing such as the drop in department store sales in June, and disappointing automobile sales. Sooner or later high interest rates will have a visibly restricting effect, as has been the case almost invariably in the past.

Although we do not look for any serious weakness in stock markets, we would not be surprised to see some selling pressure over the next two or three months, and we would confine new purchases to those issues which appear to be good value under the most rigid criteria.

R. W. WAKEFIELD; Dawson, Hannaford Ltd. (Montreal)

Current hesitation in the stock market reflects a number of conflicting trends which are taking place in the economy at the present time.

A downward trend is taking place in wholesale prices, particularly raw materials such as lumber and non-ferrous metals, whereas the costs of manufactured goods (and the cost of living) are continuing in an upward direction.

Retail prices in many cases are not covering the higher costs of manufacture and the result is lower corporate profits in the first quarter of 1957 for a number of manufacturing companies.

Consumer spending has continued to increase, with proportionately more spent on services than on goods. Service industries which derive their income directly from the Canadian consumer may offer opportunities for investment under present conditions.

Total number employed has continued to increase but the proportion without jobs and seeking employment has also increased. It may take some time before the labor force absorbs the large numbers of immigrants.

Bond prices are significantly lower than a year ago and the narrowness of the spread between short- and long-term yields may mean a further lowering in the prices of short-term, high-grade bonds.

There does not appear to be any indication at the moment that the tight money situation will change materially within the next few months. The construction industry may well continue to suffer for the remainder of the season, particularly in the residential construction field.

Gas utility stocks have remained sluggish as a result of uncertainties both economic and political; on the other hand gas producers reflect the increasing markets for Canadian natural gas.

It is too early to gauge the effect which may result from the newly enforced restrictions on security dollars in the U. K.

* * *

J. A. CUNNINGHAM; Gairdner & Co. (Toronto)

Generally speaking the market on investment securities has given a very good account of itself despite a great many bearish factors which include tight money and conflicting expert opinions which must cause great confusion in the minds of the investing public.

There can be little question that somewhere along the line and it could be not too far off, our good fixed income securities and high yielding commons will at today's prices look very cheap because of a change in the Government's tight money policy.

It is a matter of great difference of opinion as to whether the tight money policy has accomplished what it was designed to do. More people feel that it definitely has not done this and a different approach to the problem must be made before too much damage is done to our growing economy.

There has been a definite increase in informed investment buying of late which would lead one to believe that a change is expected. The stock market has done very well over the past few months but because of the specialty nature of its action it has been difficult for the professional trader to trade successfully and some of the more pessimistic opinions have come from this source which is understandable as the majority of these people live by their wits and for them this has been an unsatisfactory market.

The future of this country is great and investment in its sound industries and natural resources whether they be growth or established will in most cases bring a good yield and/or capital appreciation over the long term.

New Highs and Lows

During the week ended July 26, 10 new highs and 37 new lows were recorded among the general stocks on Canadian stock exchanges. In the mining group there were eight new highs and 119 new lows. In western oils there were 14 new highs and 12 new lows.

GENERAL

New Highs — 1957

Biltmore Hats	Imp. Invest A
Brazilian pf.	LaFargeA
Build. Prod.	Trans Prairie
C. Neon pfd.	Union Accept.
Growers Wine A	Woodward A

New Lows — 1957

Algom Steel W.	East. Steel
Analogue	Eddy Paper
Ang. C. Pulp pfd.	For. Pr. Secs. N.
Anglo-Nfld.	Fraser Cos.
Asbestos	Imp. Tob. 6% pf.
Assoc. Artists	John Inglis
Bk. Can. Nat.	Inter. Nickle.
Bk. N. Scotia	Loblaw Comp. pfd.
Beatty Bros.	Minn. & Ont. P.
Bell Telephone	Mon. Knit. pf.
Do rts.	Nat. Hosiery B
Can. Safeway pf.	Pembina 5% pf.
C. Collieries pfd.	Price Bros.
C. Int. Pwr. pfd.	Robertson J.
C. Min. & Smelt.	Trans. Mt. Oil
Copp Clark	Watermans Pen
Crow's N. Coal	Woodward A
Davis Leather A	Zeller 4½% pf.
Donald Ropes B	

MINING

New Highs — 1957

Burrex	N. Cronin
Dablon	Sharbot
Jeanette	Tazin
Kerr Lake	Wiltsey

New Lows — 1957

Acadia Ur.	Hudson R.
Alba	Hugh Pam.
Ansil	Int. Ceramic
Arcadia	Int. Nickel
Do warr.	Jardun
Arjon	Jaye
Aumacho	Joliet Que.
Aumaque	Kilembie
Beattie-Duquesne	Kirk H. Bay
Bicroft	Kirk Min.
Bidcop	Lake Dufault
Bornite	L. Lingman
Brilund	Lencourt
Broulan	Lorado Ur.
Brunswick	Do warr.
Bulolo	Lynhurst
C. North Inca	Macdonald
C. Thor	Macfie
Canalask	Madsen Red Lake
Captain	Mentor
Cayzor	Mining Corp.
Chesterville	Min. Ore
Chib. Jaculet	Nealon
Chib. Kayrand	Nesbitt L.
Chib. Mining	N. Athona
Chipman	N. Formaque
Coldstream	N. Fortune
Colomac	N. Hosco
Coniagas	N. Kelore
Conro	Nisto
Cons. Howey	Nocano
C. Que. Yell.	Norando
C. Regcourt	Nor Pax
C. Sannorm	O'Leary Malartic
C. Smelters	Opemisca
Cons. Tung.	Placer
Conwest	Portage
Copper-Rand	Que. Ascot
Crowpat	Que. Chib.
Cusco	Que. Lith.
Decour. B. warr.	Rayrock
Diadem	Reeves McD.
E. Min. & Smelt.	St. Michaels
Eureka	Sheep Creek
Frobisher	Stalleigh warr.
Fundy Bay	Standard
Gaitwin	Sturgeon R.
Galkeno	Sunburst
Geco	Tache
Geo. Scientific	Temagmi
Goldcrest	Tiara
Gold Eagle	Tib. Explor
Graham Bousq.	Un. Estella
Gunnar	Valor
Do warr.	Vico
Haitian	Wendell
Hallnor	Werner Lk.
Harr. Min.	Yale Lead
Headway	Y'ke Bear
Heath	

New Lows — 1957

C. Fortune	Gt. Plains Dev.
C. High Crest	New Ranch
Canadusa	Petrol
C. Dragon	Prairie
Dubar	Sastex
East Cdn.	Wayne
Gateway	York Oils

OILS

New Highs — 1957

Alta. Pac.	Monarch
Banff	New Gas Explor.
C. Homestead	Quinalta
C. Husky	Roxana
Century	Security
Cree warr.	Stanwell

Corporation Bonds

(Supplied by Investment Dealers' Assn. of Canada)

July 30, 1957.

Public Utility Issues	Int. Rate %	Due	Bid	Ask.	Prev. Week Bid
Alg. Cen. H.B.R.	5	'59	134	136	134
Bell Telephone	5	'72	98	100	98
Do.	4	'81	85	88	85
Bowater Pr. Co.	3½	'80	81½	83½	81½
Brazilian Traction L. & P.	4½	'70	81	84	81
B. C. Electric	3½	'67	83	86	83
Do.	3*	'80	80	83	80
Do.	4½	'81	86½	89½	86½
B. C. Telephone	4½	'75	92	95	92
Calgary Power	3½	'72	81	85	81
Consumers' Gas	5¾	'77	100	103	100
Gatineau Pr. D	3½	'70	83	87	83
Gt. Lakes Pwr.	4½	'75	81	84	81
Maclaren-Quebec Power	3	'69	82	85	82
Mex. Lt. & Pr.	5	'75	79	82	80
Nat. Lt. & Pwr.	4½	'61	93	96	93
North. Que. Pr.	4½	'67	86	89	87
Power Corp.	3½	'67	82½	85½	82½
Quebec Power	3	'62	88½	91½	88½
St. Maurice Pr.	3½	'70	83	86	83
Shaw. W. & Pr.	4½	'76	94	97	94
Do.	3½	'73	82½	85½	82½
Wpg. Electric	3½	'71	82	85	82
Industrial Issues:					
Abitibi Pr., P.	4	'74	87	90	87
Acadia-Atlantic Sugar	4	'74	83	86	83
Alum. Co. of C.	4½	'73	92	95	92
Bathurst P. & P.	5½	'73	94½	97½	94½
*Bicroft Uran.	5	'62	91	94	91
B. A. Oil	3½	'74	82	85	82
Burns & Co.	4	'63	90	93	90
Can. Bread	4½	'67	83	86	84
Can. Cement	5½	'76	97½	100½	97½
Can. Steamship	4	'66	92	95	92
Cdn. Breweries	4½	'81	81	84	81
Cdn. Canners	3½	'70	84	87	84
Cdn. Celanese	3	'62	87	90	87
Cdn. Chem. Co.	5½	'71	88	91	88
Cdn. Industries (1954) Ltd.	3½	'74	83	86	83
Can. Oil	4	'76	81½	84½	81½
CPR	3½	'72	82	85	82
Can. W. Lum.	4	'62	89	92	90
Cockshutt F. E.	4½	'65	85	88	85
Columbia Cell.	5	'68	88	91	88
Cons. Denison	5	'62	91	94	91
*Cree Oil	5	'66	128	132	125
Dom. Fd. & Stl.	4½	'69	92	95	92
Dom. Stores	5½	'76	99	102	99
Dom. Tar & Ch.	5	'67	93½	96½	93½
Dryden Paper	4½	'74	88	91	88
T. Eaton Acc.	4½	'74	89	92	89
T. Eaton Realty	5½	'76	96	99	96
E. B. Eddy	4	'74	81	84	81
Elk Falls Co.	5	'75	90	94	91
Faraday Uran.	5½	'62	94	97	96
Gen. Motors Ac.	4½	'69	89	92	89
Gt. Lakes Paper	5	'76	93	96	93
Gunnar Mines	5	'60	95½	98½	95½
H. Bay O. & G.	4	'75	82	85	82
Husky Oils	5	'69	84	87	86
Imp. Tobacco	3	'70	82	85	82½
Imp. Oil	3½	'75	84½	87½	84½
Indust. Accept.	5½	'75	91	94	91
Irving Oil Co.	5½	'67	93	96	93
Loblaw Groc.	4½	'76	113	116	113
Lorado Uran.	6	'62	95	98	95
Maple L. M.	3½	'63	87	90	87
Massey-Harris	4½	'76	80½	84½	80½
Monarch Knit.	4½	'71	69	72	69
Ont. Jockey Cl.	5½	'72	78	82	78
Phillips Elec.	5	'73	92	95	92
Price Bros.	3½	'66	87	90	87
Pronto Uranium	5	'60	95	98	95
Regent Refining	4½	'75	82	85	82
St. Law. Corp.	5	'72	94	97	94
Silverw'd Dair.	4	'71	80	83	83
Simpsons Ltd.	4½	'73	91	94	91
Simpsons-Sears	4½	'79	87	90	87
Steel Co.	2½	'67	84	87	84
Traders Finance	4½	'71	85	87	85
Union Accept.	5½	'68	90	95	91
Un. Gr. Grow.	3½	'70	83	86	83
Westons, Geo.	4½	'71	113	118	116

*With warrants.

CONVERTIBLE ISSUES

Issue	Int. Rate %	Due	Bid	Ask.	Prev. Week Bid
Abitibi P. & P.	4½	'66	94	97	94
Anglo-Am. Exp.	5½	'75	88	91	88
Atlas Steels Ltd.	5	'67	106	111	106
Braz. Traction	4½	'71	80	84	80
CPR	3½	'66	94	97	95
Do.	4	'69	99	103	99
Cdn. Petrofina	4	'72	104	106	104
Cockshutt Farm	5	'68	83	88	82
Dom. Stl. & Co.	4½	'70	152	156	151
Dom. Textile	4	'66	85	90	87
Home Oils	5½	'71	111	117	113
Jupiter Oils	5	'67	86	92	87
Loblaw Groc.	4½	'76	112	117	113
N. Concord D.	5½	'65	88	92	88
N. Sup. Oils	5	'64	79	86	78
Phillips Elec.	5½	'70	98	102	98
Scurry Oils	5	'64	86	90	86
Silverw'd Dair.	5½	'72	91	96	93
Trans Emp. Oil	5½	'67	93	96	93
Triad Oils	4½	'71	96	99	97

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Food

LOBLAW GROCETERIAS CO., Toronto, consolidated net profit for the 52 weeks ended June 1, 1957 was $8,015,740, compared with net profit of $5,668,088 for the 53 weeks ended June 2, 1956. The latest year's consolidated statement includes the accounts of Loblaw Inc. for the first time.

Canadian sales rose by 11.4% to a new record. Net profit from these sales alone was $6,284,850, or 2.2% of sales, reports President G. C. Metcalf.

Earnings of **National Tea Co.,** Chicago, are included only to the extent of dividends received.

A pro forma calculation to include net earnings of National Tea, in excess of dividends received, accruing to shares held by Loblaw Groceterias indicates that earnings on the combined second preferred and common shares would be approximately $8.50 per share.

New financing is under consideration, the president states.

Accumulated amount by which income taxes have been reduced due to claiming depreciation for tax purposes in excess of the depreciation provided in the accounts, is $1,492,000.

CONSOL. INCOME ACCOUNT

Years Ended:	‡June 1 1957 $	June 2 1956 $
Gross sales	*285,000,000	255,736,868
Net earnings	25,237,171	13,479,690
Less: Deprec.	5,782,265	2,926,844
Debent. int.	1,588,576	1,097,526
Oth. int.	83,906	4,349
Inc. tax res.	7,914,608	3,782,883
Subsid. inc. prior to acq.	297,300	......
Min. int.	1,554,776	......
Net profit	8,015,740	5,668,088
Less:		
1st Pref. divds.	997,500	83,125
2nd Pref. divds.	916,815	727,667
Com. divds.	1,047,098	831,071
Surplus for year	5,054,327	4,026,225

*Candn. retail sales only.
‡Includes accts. of Loblaw Inc.

Times Debenture Interest Earned:*		
Before deprec.	15.83	12.28
After deprec.	12.19	9.61

*After other interest.

Earnings per Share and Dividend Record:		
1st Pref.	$12.05	$8.52
Paid	1.50	0.12½
2nd Pref. & com.	7.36	5.86
Paid	2.06	1.63½

Shares o/s at:	June1 1957	June 2 1956
1st Pref. Series A	665,000	665,000
2nd Pref., n.p.v.	445,056	445,056
Common	508,300	508,300

CONDENSED CONS. BALANCE SHEET

As at:	1957 †June 1	1956 June 2
Cash & mkt. secs.	$8,601,741	$5,123,788
Accts., etc., rec.	5,901,527	1,189,450
Rec. under lease-backs	1,914,234	......
Inventories	47,598,954	16,350,602
Total curr. assets	64,016,456	22,663,840
Misc. assets	3,401,582	1,320,354
Inv. in & adv. to subsid.	45,383,497	46,544,774
Fixed assets*	60,457,936	35,654,861
Total assets	173,259,471	106,183,829
Due bank	4,055,927	......
Divd. pay.	79,100	......
Accts., etc., pay.	43,831,034	15,255,260
Sinking fund	1,660,000	1,300,000
Inc. tax res.	4,352,657	2,020,022
Total curr. liab.	53,978,718	18,575,282
Min. int.	12,635,943	......
Mtges. payable	325,456	179,470
Real estate res.	3,980,636	3,098,109
Funded debt	38,275,985	26,420,000
Capital stock	27,129,422	27,129,422
Contrib. surp.*	1,748,330	1,695,750
Surplus‡	35,184,981	29,085,796
*After depr. of	28,227,384	14,811,648
Working capital	10,037,738	4,088,558

*Premium on First Pref. shares.

‡After adding $6,123,571 in 1956 and $1,470,135 in 1957 profit on sale of land and bldgs., $400,000 in 1956 trans. from res. for contingencies; and deducting $538,289 in 1956 and $1,125,503 in 1957 carrying charge reserve, also $138,354 in 1956 and $397,319 in 1957 expenses re sale of debentures and $702,385 in 1956 and $2,190,619 in 1957 consol. goodwill written off and earnings of Loblaw Inc. from acquisition to June 2, 1956, of $3,288,164.

†Includes accts. of Loblaw, Inc.

Food

LOBLAW COMPANIES LTD., Toronto, showed a consolidated net profit of $6,702,796 for the year ended June 1, 1957, first full year of operation. Net profit for the period Jan. 18 to June 2, 1956 was $1,293,094.

During past year company accepted additional shares of **Loblaw Groceterias Co.** in exchange for its own shares. At year-end it held 97.1% of the second preferred shares and 96.9% of the common shares. These represented its sole holdings at year-end, reports President G. C. Metcalf.

A pro forma calculation to include net earnings in excess of dividends received of **National Tea Co.,** Chicago, accruing to its shares held by Loblaw Groceterias indicates that earnings on the combined Class A and B shares would be approximately $3.12 per share, company says.

CONSOL. INCOME ACCOUNT

Period:	♦June 2, 1956 to June 1, 1957	Jan. 18 to June 2, 1956
Operating profit	$23,592,538	$8,284,871
Add: Invest. inc.	1,160,142	832,883
Misc. inc.	138,752	130,967
Net income	24,891,432	9,248,721
Less: Deprec.	5,782,265	2,926,844
Deb. int.	1,588,576	1,097,526
Other int.	83,906	4,349
Inc. tax res.	7,914,608	3,782,883
Minority int.	2,819,281	144,025
Net profit	6,702,796	1,293,094
Less: Pref. divds.	1,033,656	249,901
Class A divds.	68,910	18,660
Class B divds.	786,797	195,019
Surplus for year	4,813,433	831,514

♦Includes accounts of Loblaw, Inc., a U. S. subsidiary.

Times Debenture Interest Earned:*		
Before deprec.	15.62	8.42
After deprec.	11.98	5.76

*After other interest.

Earnings per Share and Dividend Record:		
Pref.	$15.50	$3.04
Paid	2.40	0.60
Class A & B	2.64	0.49
Class A: Paid	0.40	0.10
Class B: Paid	0.40	0.10
Shares Outstanding:		
Pref.: $5 par	432,343	435,987
Class A, n.p.v.	172,937	170,395
Class B, n.p.v.	1,970,703	1,952,167

CONSOLIDATED INCOME ACCOUNT

As at:	♦June 1 1957	June 2 1956
Cash	$8,609,123	$5,124,280
Accts., etc., rec.	7,815,761	1,152,650
Inventories	47,598,954	16,350,602
Total curr. assets	64,023,838	22,627,532
Mktble Secs. at cost:†		
Loblaw Inc.	......	7,774,972
National Tea Co.	40,779,895	34,447,302
Misc. assets	3,651,757	1,566,635
Loblaw Leased Prop. pf. shs., cost	4,322,500	4,322,500
Fixed assets*	60,457,936	35,654,861
Total assets	173,235,926	106,393,802
Accts. & taxes pay.	52,332,263	17,484,763
Sinking fund	1,660,000	1,300,000
Total curr. liab.	53,992,263	18,784,763
Real estate res.	3,980,636	3,098,109
Mortgages	325,456	179,470
Funded debt	38,275,985	26,420,000
Minority int.	33,897,216	21,515,888
Capital stock	36,822,836	35,564,058
Earned surplus	5,941,534	831,514
*After depr. of	28,227,384	14,811,648
†Market value	29,400,000	38,611,093
Working capital	10,031,575	3,842,769

♦Includes accounts of Loblaw, Inc., a U. S. subsidiary.

Packers

CANADA PACKERS LTD., Toronto, consolidated net profit for the year ended March 27, 1957 was 5% lower at $4,506,506 ($4,745,533 in previous year).

Dollar sales were 7.6% higher than in previous year, reports President W. F. McLean.

Net profits represented 0.98% (1.11%) of sales. Packing profits are the lowest of any major industry, and are likely to remain so due to the strong competition and rapid turnover, company says.

Net earnings on livestock products alone were ⅛c per lb., or 0.42%. Farmers received 78c per sales dollar.

The trend to lower hog prices from 1950 to 1954 has been reversed and there has been a gradual improvement in the last two years.

Lower hog prices in late 1954 and throughout 1955 discouraged production resulting in lower marketings in the second half of 1956. This, combined with the embargo on U.S. pork because of disease, has resulted in relatively high prices on Canadian hogs this year.

An important development in the last few years has been the rapidly growing importance of poultry products. This is due to large scale and scientific methods of raising and processing. It is expected that the poultry industry will continue to grow and give strong price competition to other meats. The poultry business forms an important part of company's operations.

The decline in beef exports has continued with the growth in the domestic market.

Company's employee profit sharing plan is continuing its growth of the last four years. It now amounts to over $4.4 million.

CONS. INCOME ACCOUNT♦

Years Ended:	Mar. 27 1957 $	Mar. 28 1956 $
Net sales	467,187,563	434,221,483
Net earnings	12,360,071	12,050,227
Less: Deprec.	2,980,808	2,726,556
Inc. & other tax	5,050,056	5,706,415
Add: Other inc. & prof. invest. sale	238,129	205,525
Less: Min. int.	80,830	77,248
Net profit	4,506,506	4,745,533
Less: Cl. A divs.	700,000	600,000
Cl. B divs.	1,400,000	1,200,000
Surplus	2,406,506	2,945,533

♦Consolidated accounts of parent co. and all subsids. in 1956; in prior years, consol. accounts of companies engaged primarily in packinghouse operations only.

Earnings per Share and Dividend Record:		
Class A†	$11.27	$11.86
Paid	1.50+0.25	1.50
Class B†	4.88	5.18
Paid	1.50+0.25	1.50
Cl. A & B‡	3.76	3.95

†Before (‡after) participation.

Shares o/s at:	Mar. 27 1957	Mar. 28 1956
Class A, n.p.v.	400,000	400,000
Class B, n.p.v.	800,000	800,000

CONDENSED CONS. BALANCE SHEET♦

As at:	Mar. 27 1957	Mar. 28 1956
Cash	390,201	353,657
Accts., etc., rec.	22,073,101	22,818,871
C.s.v., life insur.	306,450	279,034
Inventories less res.	39,391,409	37,628,005
Total curr. assets	61,861,161	60,819,567
Prep. exps.§	984,092	1,128,352
Invest. in oth. sec.	644,175	630,500
Fixed assets•	24,697,190	19,362,748
Total assets	88,186,618	81,941,367
Due bank	23,763,305	19,466,548
Accts., etc., pay.	18,564,246	19,311,613
Divds. pay.	1,050,000	900,000
Total curr. liabs.	43,377,551	39,678,161
Minority interest	650,937	511,582
Appraisals surp.	5,663,432	5,663,432
Capital stock	1,438,284	1,438,284
Earned surplus	37,056,414	34,649,908
•After deprec. of	38,042,285	35,939,239
Working capital	18,483,610	21,141,406

§Included in curr. assets in co.'s report.
♦Consolidated balance sheet of the parent co. and all its subsids.

BRITISH COLUMBIA FOREST PRODUCTS LTD.—Scott Paper Co. has purchased an additional 73,000 shares under agreement to purchase one million shares at $15 each by Dec. 31, 1957. This leaves a balance of 365,000 shares to be taken up. Now 3,077,750 shares outstanding.

Special Advantages of

GROUPED INCOME SHARES LIMITED

Successor to G.I.S. Series "A" Trust, established in 1931

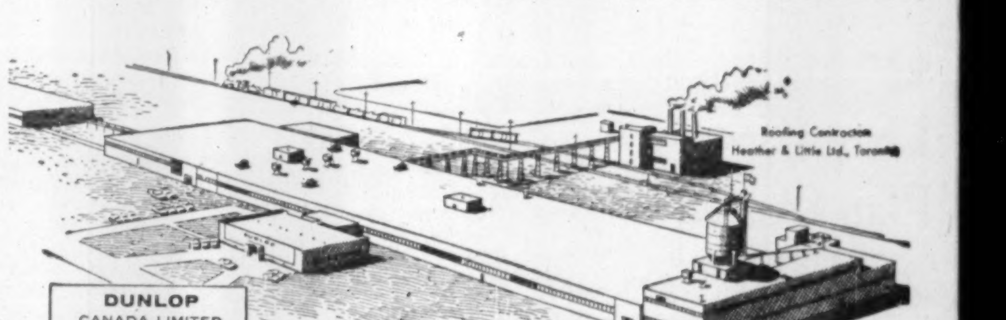
1 North American Diversification
2 Generous Dividend Policy
3 Capital Growth Potential
4 Professional Management
5 Protection from Inflation
6 Immediate Marketability
7 Advantageous Tax Position
8 Favorable Succession Status
9 Safe Guardianship of Assets
10 Quarterly Reports to Shareholders

Obtain a copy of the prospectus and latest report through your own investment dealer or stockbroker, or directly from . . .

Grouped Income Shares Limited
544 Howe Street
Vancouver 1, Canada
MArine 9920

Player's Please

THE MILDEST BEST-TASTING CIGARETTE



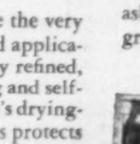
Here's the gigantic new plant of
Dunlop Canada Limited

This is a 4-ply pitch and gravel roof. It is bonded by Johns-Manville for 20 years. And we have complete confidence that it will provide many more than two decades of low-cost weather-tight protection.

J-M Gravel Surfaced Built-Up Roofs combine the very best in roofing materials, engineering practice and application methods. The bituminous agent is a specially refined, low melting point pitch with ideal waterproofing and self-healing qualities. The gravel surface defies the sun's drying-out action . . . keeps the bitumen "lively" and thus protects the vital roofing felts.

Because proper application of materials is essential, the Dunlop Canada Ltd., roof (like all Johns-Manville Bonded Built-Up Roofs) was applied by a J-M-Approved Roofer.

Johns-Manville has a roofing specification for every type of building; this includes Flexstone smooth-surfaced asbestos roofs and Aquadam gravel surfaced roofs.



FREE Write Canadian Johns-Manville, Port Credit, Ont., for folders on Aquadam roofs and Flexstone Super "A" roofs.

Johns-Manville
ALMOST A CENTURY OF ROOFING EXPERIENCE
8-1140R

DIVIDEND NOTICES

CHAMPION MUTUAL FUND OF CANADA LTD.

Notice to Shareholders

DIVIDEND NO. 6

Notice is hereby given that a quarterly dividend of 5c per share has been declared on the outstanding Capital Stock of Champion Mutual Fund of Canada Ltd., payable on August 31, 1957, to Shareholders of record at the close of business on August 15, 1957.

By Order of the Board.

J. G. McD. BROWN, Treasurer.

Montreal
July 26, 1957

PEMBINA PIPE LINE LTD.

DIVIDEND NOTICE

Preferred Shares

Notice is hereby given that a dividend of sixty-two and one-half cents ($0.62½) per share on the 5% Cumulative Redeemable First Preferred Shares of the Company has been declared for the quarter ending September 2, 1957, payable on September 2, 1957, to Shareholders of record on August 15, 1957.

By Order of the Board.

E. W. COSTELLO, Secretary.

July 25, 1957.

ROBINSON, LITTLE & COMPANY, LIMITED

WINNIPEG — MANITOBA

CLASS "A" DIVIDEND No. 43

NOTICE IS HEREBY GIVEN that a dividend of Twenty-five (25) cents a share has been declared on the Class "A" stock of the Company payable on the 31st August, 1957 to shareholders of record at the close of business on 15th August, 1957.

By Order of the Board,

JACK L. MacDONALD, Secretary.

McCOLL-FRONTENAC OIL COMPANY LIMITED

PREFERRED STOCK DIVIDEND NO. 45

NOTICE IS HEREBY GIVEN that a Dividend of $1.00 per share, being at the rate of 4 per cent per annum, has been declared on the 4% Cumulative Preferred Stock of McColl-Frontenac Oil Company Limited for the quarter ending September 30, 1957, payable October 19, 1957 to shareholders of record at the close of business on September 30, 1957.

By Order of the Board,

FRED HUNT, F.C.I.S. Secretary.

CLOVER LEAF SEAFOODS

BRITISH COLUMBIA PACKERS LIMITED

NOTICE IS HEREBY GIVEN that the Directors of British Columbia Packers Limited have declared the following dividends:

CLASS "A" SHARES
A semi-annual dividend of 37½c per share on its Convertible Non-redeemable Class "A" Shares.

CLASS "B" SHARES
A dividend of $1.00 per share on its Class "B" Shares.

The foregoing dividends are payable on September 16, 1957, to shareholders of record at the close of business on August 30, 1957.

DATED at Vancouver, B.C., this 24th day of July, 1957.

By Order of the Board,

D. A. BAXTER. Secretary.

DIVIDEND NOTICE

CANADA MALTING CO., LIMITED

NOTICE is hereby given that a dividend of Fifty Cents (50c) per share has been declared on the common shares of the Company payable on September 16, 1957, to holders of common shares of record at the close of business on August 15, 1957.

Holders of share warrants will present Coupon Serial No. 119, covering the above dividend on the Company's common shares, to The Royal Bank of Canada, MONTREAL, TORONTO, WINNIPEG or CALGARY on and after September 16, 1957.

By order of the Board,

GEORGE J. WILLIAMS, Secretary.

DIVIDEND NOTICE

CANADA MALTING CO., LIMITED

NOTICE is hereby given that a dividend of twenty-nine and one-quarter cents (29¼c) per share has been declared on the preferred shares of the Company payable on September 16, 1957, to holders of preferred shares of record at the close of business on August 15, 1957.

By order of the Board.

GEORGE J. WILLIAMS, Secretary.

Dated at Toronto
July 18, 1957.

YALE & TOWNE

Declares 278th Dividend

37½¢ a Share

On July 25, 1957, dividend No. 278 of thirty-seven and one-half cents per share was declared by the Board of Directors out of past earnings, payable on Oct. 1, 1957, to stockholders of record at the close of business Sept. 10, 1957.

Wm. H. MATHERS
Vice-President and Secretary

THE YALE & TOWNE MFG. CO.
Cash dividends paid in every year since 1899

Market Bid and Ask Quotations

Montreal & Toronto

July 30, 1957

Stock	Bid	Ask	Stock	Bid	Ask
[illegible]			[illegible]		
xRainville	77	85	xWd Alex	300	375
Rap-Grip	8½	9¼	GH Wd p	94¼	..
xRayroc	141	148	Wood JA	37½	38½
xReef Exp	15	15½	Wood	90	92½
xReeves	102	120	xWoodgrn	31	33
xRenabie	130	140	Woodw A	13¼	13¾
xRexspar	42	45	xWl Com	285	400
Reynold p	85	85	xWr Harg	135	140
xRichwil	171	175	Windfall	25	29
xRio Rup	10½	12	xYale Ld	17	19
R Silk A	15	15	xYan Can	7½	8
Do B	5	15	xYellorex	8½	9
xRix Ath	72	73	xYk Bear	128	129
Robertson	15	16½	xY Kn A	200	200
Do $1 p	18	19	Do B	..	50
xRobin	300	500	xYukeno	7	7½
Do pr	150	200	Zeller 4½%	42½	43
R Little	9¼	9½	xZenmac	27	29
Do A	12½	13½	xZulapa	32	37
xRoche	16	17			

x—Quoted in cents

Toronto Curb

Stock	Bid	Ask	Stock	Bid	Ask
Andian	375	550	Dupont	17½	18½
Ang Cdn	32½	33½	Do pr	82	87
Ang-Nfld	7¾	8	Gaspe Cop	29	29
Asbestos	28¼	29	Hayes	25	27
B Am Bk	28	33	Int Pap	96	97¾
xBulolo	385	390	Int Util	66½	67
CD Sug	22¾	23	Langley pr	39½	45
Can Ving	17½	19¼	Lob Inc	78¼	83
C Bronze	29	30	MacLaren	71	82
C Cottons	11¼	15	MO Paper	25¾	26¾
Do pr	6	8	Niag Wire	40½	45
CG Inv	29½	30	Ogilvie	31	31¾
C Indust	17	17⅜	Do pr	130	165
CIL pr	75½	79	xPato	375	380
C Ingersoll	51	53	xPend Or	243	260
xC Mconi	305	325	Price Br	48½	49
C Wstghse	46	48½	Ridgeway	9½	10½
xCoast C	225	300	Sangamo	11½	12
C Paper	33½	34¼	xSW Pete	95	110
xDalhousie	32	35	Third CG I	5½	6
DeHav	165	..	Twin City	12½	17
D Glass	63¾	64½	xYukon C	62	65
Do pr	12½	15	Zeller's	28½	30
D Oil Clth	28	29			

x—Quoted in cents.

DIVIDEND NOTICES

PHOTO ENGRAVERS & ELECTROTYPERS LIMITED

DIVIDEND NO. 65

NOTICE is hereby given that a Dividend of One Dollar and Twenty-Five Cents ($1.25) per share, on the outstanding no par value shares of the Company, has been declared payable on September 3rd, 1957, to shareholders of record at the close of business on August 15th, 1957. The Transfer Books will not be closed.

By Order of the Board,

F. G. BLACK, Secretary-Treasurer.

Toronto, Ontario, July 30, 1957.

VIRGINIA DARE LIMITED

DIVIDEND NOTICE — **PREFERENCE SHARES**

A dividend of thirty-one and one-quarter cents (31¼c) per share on the 5% Cumulative Redeemable Preference Shares of the Company has been declared for the three months ending September 1, 1957, and payable on September 1, 1957, to Shareholders of record on August 12, 1957.

By Order of the Board,

G. I. TAYLOR, Secretary.

Toronto, Ont.
July 25, 1957.

TAYLOR, PEARSON AND CARSON (CANADA) LIMITED

Notice is hereby given that the 44th quarterly dividend at the rate of five percent (5%) per annum in respect of all Preferred Shares of the Company issued and outstanding will be paid to all holders of Preferred Shares of record in the books of the Company as of July 31, 1957.
The dividends will be payable at the Head Office of the Company on August 15th, 1957.

By Order of the Board,
TAYLOR, PEARSON AND CARSON (CANADA) LIMITED
G. C. Montgomery, Secretary-Treasurer.

Edmonton, Alberta.
July 8, 1957.

SIMPSONS, LIMITED

COMMON SHARES

Dividend Notice

NOTICE is hereby given that a Dividend of twelve and one-half cents (12½c.) per share on the outstanding Common Shares of the Company has been declared payable September 16, 1957 to shareholders of record as at the close of business on August 15, 1957.

The transfer books will not be closed.

By order of the Board.

Frank Hay
Secretary and Treasurer

Toronto, July 19, 1957.

Canadian Stock Exchange

Stock	Bid	Ask	Stock	Bid	Ask
Beaubran	29¾	31	Do pf 7%	..	22½
Beld Cort	10	12	Pr Crp 1st	43	..
Do pfd	..	13½	Do 2nd	71	..
Belg'm St	5	8	Que-Tel	25	..
Do pfd	12½	13½	Sangamo	11½	12½
C Floor B	..	14	Tooke Br	75	110
C Arena	110	140	Do pfd	150	180
Cdn I Inv	20	25	Un Amu A	8	9
C Silk A	300	350	Do B	7½	..
Catelli A	39	..	Do vt A	8	9½
Do B	35½	..	Un Dist	11	..
Cinzano A	45	..	Waterman	5½	6
Do 5½% pf	80	..	Wood Mfg	41	..
Cl Neon A	6¼	8½	**MINES—Cents**		
Do B	5½	7	Alta	8	15
Do pfd	100	100½	Amer'nm	8	9
C Div A	135	180	Arno	6	8
Do pfd	33½	..	Band-Ore	4½	5
Con Text	..	17	Barvallee	6	15
Crain, RL	35	..	Beatrice	6	8½
Dav & F A	..	50	Bellechasse	70	71
E Koot pf	113½	..	Belle-Chib	14	14½
For Pr Se	350	400	Boreal Rare	4	5
Horner A	9	10½	Bouzan	51	9
Htl La Sal	37	51	Burnt Hill	60	68
Hub Felt	275	..	Calumet Ur	6	7
Do A	19	21	E Smelt	264	..
Hydro El	10½	11½	Fab Metals	18	20
I Paints A	8	8½	Fontana	6	8
Do pfd	..	25	Gui-Por Ur	6	10
Inv Found	42	50	Hcrest Coll	70	..
Do pfd	55	60½	Hud-Rand	11	17
Lambert A	10½	13	Iso Uran	35	36
Do B	15	17	Jardun	4	5
Latonia In	17¾	19	Kontiki Ld	10	11
Lochaber	175	..	Lingside C	6½	7
Maclaren P	82	84½	**OILS—Cents**		
Melchers D	8½	..	Bonn'lle	30	32
Do pfd	15	16½	Calalta	..	140
Mtl Refrig	38½	..	Emp Oil	12	13
Mt R Rice	14	15½	Gaspe	12	13½
Nfld L & P	52	..	Gateway	5½	6
Paton Mfg	10¾	12			

Calgary Oils

Quoted in cents

Stock	Bid	Ask	Stock	Bid	Ask
Albedina	5	6½	Leduc Cal	15	16
Aldina-L	..	9	Ldmnstr D	45	70
Amalta	5½	5½	Mill Crk	80	90
Barons	5½	6¼	Mollusca	145	150
Bashaw L	11½	12	Monarch	18½	19
Blue Cr	18½	21	N Ranch	5	5½
Cdn Emjay	6	7	N Richfield	9	9½
Cdn F'tune	9	10	North Cont	2½	2½
Carleton	..	80	Nuco Pete	31	33
Castle O&G	16	17	Quinalta P	50	51
Century	21½	22	Reality	2½	3
Claybar Ur & Oil	16	17	Renfrew P	3	5
Command	..	100	Ridgeway P	3½	4
Cons Gr Cr	6½	7	Roy Cdn V	66	80
Dom. Minls	7¾	8	Sage	99	100
Dubar Expl	3½	4	Sastex O&G	10	1
E Can Gas	15	20	Sastex Oil & G	10	14½
Edoran	9	9½	Select	13½	15
Freehold	2½	3	Share	10	12
Ft St John	..	710	Silver City	11	12
Gold Sat	28½	29	Sturgeon P	9	10
Gold Spike	..	7½	Titan Pet	..	650
Hargal	7½	8	Transfld P	4½	5
Henderson	10	13	Tri-Zone	8½	9½
Jump Pd	55	60	Turner Val	35	39
Kenare P	10½	10½	Vanalta	29	30
Keno	19	19½	W Warner	8½	9½
Leamac Pet	6½	7½	York	5½	6½

Commodities

	Latest week	Previous week	Same week last yr.
Cattle	$19.75	$19.75	$21.00
Hogs	36.25	34.57	27.75
Copper, lb.	.29½	.29½	.38
Coffee, lb.	.54¼	.55	.58
Sugar, raw, lb.	.0585	.0580	.0564
Hides	.15½	.15½	.15½
Weekly Commodity Indices			
Dow Jones	160.85	159.14	156.96
U. S. Labor	118.0	118.0	114.1
Monthly Commodity Indices			
Canada (D.B.S.)			
Retail (May)†	121.8	121.1	117.8
W'sale (May)	228.0	225.4	225.3
C. F'm Pro. (May)	206.4	207.5	214.7
U. S. (Apr.)	117.2	116.9	112.8
Grt. Brit. (Apr.)*	160.0	•159.1	....
Do (Apr.)▲	138.4	138.3	....

Note: †Cost-of-Living Index Revised to the Base of 1949=100.

Base of price quotations is as follows: Cattle-Steers, good up to 1,000 lb., to price Toronto. Copper-electrotypes, New York. Coffee No. 4 Santos. Spot Raw Sugar 96 degrees centrifugal c.i.f.

•Revised.

Gt. Britain Index Revised. Base year 1949.

*Basic materials index (excl. fuel) for nonfood mfg. ind.

▲All mfg. products other than fuel, food and tobacco.

Municipal Bonds

July 30, 1957.

	Coup.	Matur.	Bid	Ask	Yld.
Calgary	3½	'69	80	82	5.60
Edmonton	3½	'69	79½	81½	5.60
Halifax	3½	'66	83	85	5.68
Hamilton	3	'67	80⅞	82⅞	5.25
Montreal	3	'70	75½	78½	5.21
Moose Jaw	3½	'60	91⅜	93⅜	5.75
Ottawa	3¼	'68	82½	84½	5.20
Regina	3	'64	82	83⅞	5.70
Saint John	3½	'65	83½	86	5.70
Toronto	3	'68	79¼	81¼	5.20
Vancouver	3¾	'69	82¼	84¾	5.60
Victoria	3¾	'68	82¼	84¼	5.65
Windsor	2¾	'75	64¼	66¼	5.75
Windsor	3½	'75	72⅞	74⅞	5.75
Windsor	2½	'75	61⅞	63⅞	5.75
Winnipeg	3	'69	77½	79½	5.40

Foreign Exchange

Noon Value in Canada
Week Ended July 26, 1957

	U.S. $	U.K. £
Mon.	95	2.64 24/32
Tues.	95	2.64 23/32
Wed.	94 31/32	2.64 16/32
Thurs.	94 26/32	2.64 2/32
Fri.	94 30/32	2.64 11/32
Ave.	94 151/160	2.64 76/160

U.S. rate reported by Bank of Canada.

U.K. bid rate reported by Toronto-Dominion Bank.

Volume of Stock Sales

	Montreal	Toronto	Calgary	Vancouver	New York
July 29	379,600	2,136,000	91,917	222,479	2,860,000
July 26	571,000	2,747,000	257,433	297,674	2,600,000
July 25	645,400	2,948,000	159,480	200,936	2,720,000
July 24	734,700	2,693,000	123,314	185,012	2,540,000
July 23	645,900	3,649,000	155,757	156,496	2,680,000

Government Bonds

July 30, 1957. (Supplied by Investment Dealers' Assoc. of Canada)

%	Due	Bid	Ask
Govt. of Can. Bonds:			
3	Jan. 1959	97¼	98
3	June 1960	95¼	95¾
3	Feb. 1962	92¼	92¾
3	Oct. 1963	90½	91¼
3	Sept. 1966	87½	88½
3	Perpetual	†79	80½
2¾	June 1968	83½	84½
3¾	Jan. 1975/78	93	94
3¾	June 1974/76	86½	87¼
Cdn. Nat. Railways:			
3	Jan. 1959	96¾	97¾
2¾	Jan. 1967	83	85
3	Jan. 1966	87	88½
2¾	Sept. 1969	81	83
Grand Trunk Pacific Rlwy.:			
3	Jan. 1962	•91½	93½
4	Jan. 1962	•95½	97½
Int. Bank of Reconstruct. & Development			
3½	Apr. 1965	88	90
3½	June 1969	86	88
C'wealth of Australia:			
4	Nov. 1970	87½	89½
Prov. Govt. Bonds			
Alberta:			
2¾	Mar 1970	♦83	85
British Columbia:			
4½	Jan. 1969	♦95	97
3	Dec 1960	93	94½
3	June 1964	87½	89½
5	Sept 1959	♦99½	101
B. C. Power Comm.:			
3	Oct. 1967	83½	85½
Manitoba:			
4	Dec 1957	♦99	100
5	Dec. 1959	•99½	100½
5½	July 1958	99¾	100¼
3	Oct. 1965	85	86½
New Brunswick:			
4½	Nov 1960	♦97½	99
5	Mar 1960	♦98½	100
3½	June 1963/65	87¼	89¼
3	June 1956/58	97½	98½
2¾	June 1965/68	80½	82
Nova Scotia:			
4½	Apr 1961	♦97	99
2¾	June 1966	81	82½
3½	Sept. 1965	86½	88½
5	Mar. 1970/75	97½	99
Ontario:			
2¾	Nov. 1965/69	79	81
4	June 1962	•94½	96½
4½	Jan. 1962	♦96½	98½
2¾	July 1967/76	76	79
3	Nov. 1963/65	85½	87
5	May 1959	•99½	100½
4	June 1969/72	90	92
Ont. Hydro Comm.:			
2¾	Oct. 1965/68	80	82
3	Dec. 1963/65	85	86½
3	Nov. 1967/69	81	83
3½	May 1974/79	80	82
5	Apr. 1974/77	98½	99½
Prince Edward Island:			
3	Oct. 1965	84	86
Quebec:			
4½	Aug 1958	99	100
4½	Jan. 1963	97	98½
3	Sept. 1962/64	87½	89½
Quebec Hydro Commission:			
3	Feb. 1969/73	80	82
3	Dec 1958/60	92½	94
3½	May 1971/74	81	83
4½	Oct. 1973/76	91½	93½
Saskatchewan:			
5	Aug 1958	99	100½
4½	Mar. 1960	♦97	99
3	Mar 1963	89	90½
3½	Nov 1960/62	90½	92½
3¾	Oct. 1962/65	90	92
5	Dec. 1959	♦99	100½
Newfoundland:			
4½	July 1964	92½	94½

•Payable Can., N.Y. or £. ♦Payable Can. or N.Y. †Callable on or after Sept. 15, 1966.

Significant Investors' Index Numbers

	Mach. and equip.	Pulp and paper	Milling	Oils	Textiles and clothing	Food and allied prod	Beverages	Bldg mater	Power and traction	Banks	Total utilities	Total co's
No. of Securities	10	9	2	5	8	14	10	15	8	7	13	95
*1935 to date:												
High	947.5	1238.1	252.0	285.5	410.5	211.0	650.0	635.0	267.1	304.7	219.8	297.8
Low	69.7	51.6	61.2	78.4	78.4	79.5	79.3	66.7	60.2	60.0	62.5	61.1
1957 Monthly Figures:												
Jan.	763.0	1005.3	147.8	251.6	163.7	181.2	506.3	463.2	227.9	289.9	207.5	273.7
Feb.	756.6	946.4	141.4	244.8	154.7	181.4	488.8	433.4	228.0	271.3	203.6	263.2
Mar.	790.4	966.4	134.8	246.2	153.5	182.8	485.9	438.0	239.0	266.2	209.2	267.5
Apr	825.6	997.0	138.2	262.9	153.4	197.6	490.9	453.5	243.6	277.5	212.5	278.8
May	868.0	996.4	155.0	278.8	157.2	204.7	516.0	470.4	251.9	279.0	216.1	287.6
1957 Weekly Figures:												
June 6	874.0	1000.7	144.4	284.2	155.2	211.0	516.4	487.1	264.8	283.2	218.4	290.7
June 13	883.7	1002.2	138.8	281.9	163.5	210.6	525.9	485.0	264.3	283.8	217.8	290.8
June 20	878.7	991.6	144.4	267.9	165.7	208.9	506.9	478.1	264.2	280.7	216.0	283.0
June 27	894.5	1001.2	139.9	268.2	162.6	202.3	509.3	479.3	265.0	279.4	214.9	283.0
July 4	931.7	1007.3	138.0	278.9	156.8	202.3	507.3	484.4	267.1	276.9	216.0	287.5
July 11	937.7	1006.1	139.9	274.7	165.5	204.3	504.0	483.3	261.9	276.7	214.7	285.8
July 18	930.4	993.0	136.1	275.5	163.5	208.7	509.2	484.7	263.6	279.2	214.2	285.2
July 25	928.9	961.2	136.1	267.7	164.2	202.7	504.4	481.1	255.6	278.5	210.5	280.3

*High and low for year from 1935 to date inclusive are based on weekly figures used by the Dominion Bureau of Statistics.

Toronto Stock Exchange Index

	20 Indus.	20 Golds	15 B.M.	15 W.O.
July 29	474.83	78.65	192.87	186.82
July 26	478.88	78.72	193.46	190.37
July 25	478.50	78.52	193.31	190.80
July 24	478.80	78.42	192.90	190.72
July 23	479.50	78.96	192.97	189.82
Month Ago	482.06	80.68	197.12	188.36
Year Ago	495.90	86.96	251.83	164.91
1957 High	490.42	83.72	232.21	193.96
1957 Low	441.50	74.17	191.97	150.59

Montreal Stock Exchange Index

	10 Util	20 Indus	30 Com	10 Pprs	15 Golds
July 29	150.3	286.9	241.4	1203.00	87.52
July 26	151.5	288.3	242.7	1217.55	87.86
July 25	151.5	289.6	243.6	1212.73	86.09
July 24	152.4	289.0	243.4	1221.05	85.76
July 23	152.4	290.7	244.6	1229.38	86.49
Mon. Ago	155.4	291.3	246.0	1265.62	88.09
Year Ago	145.5	323.7	264.3	1693.46	83.90
1957 High	155.4	300.0	249.4	1435.36	91.06
1957 Low	135.2	273.8	229.2	1203.00	70.51

Dow-Jones Closing Stock Averages

	30 Indus	20 Rails	15 Util	65 Stocks
July 29	508.25	149.32	69.91	175.65
July 26	514.59	152.33	70.03	177.84
July 25	516.69	153.81	70.47	178.86
July 24	515.78	152.91	70.51	178.44
July 23	515.61	152.22	70.57	178.24
Month Ago	503.29	146.49	70.28	173.99
Year Ago	513.42	169.03	70.90	182.24
1957 High	520.77	157.67	74.61	179.87
1957 Low	454.82	139.23	68.33	161.71

Grain Prices

Winnipeg Futures

Week July 29, 1957

Crop year from Aug. 8, 1956 High	Low		High for week	Low for week	Close July 29
		Oats—			
.80¼	.65¾	July	.70½	.69¼	.69¼
.76¾	.68	Oct.	.70½	.69¼	.69¼
.69¾	.67½	Dec.	.69¾	.68¼	.68¼
.71⅜	.69¼	May	.71	.69⅜	.69⅜
		Barley—			
1.04¾	.88¼	July	.96¾	.96¼	.96¾
1.02⅜	.90¼	Oct.	.96⅜	.92¼	.94¾
.95¼	.71	Dec.	.94⅜	.92¼	.92⅜
.96⅜	.91⅜	May	.95⅜	.93¼	.93⅜
		Rye—			
1.49¼	.97⅜	July	1.09¼	1.05⅜	1.08⅜
1.35⅜	.99¼	Oct.	1.12¼	1.07⅜	[illegible]
1.21¼	1.00⅜	Dec.	1.14	1.09⅜	[illegible]
1.26¼	1.09⅜	May	1.19⅜	1.15	1.18⅜
		Flax—			
3.23	2.37½	July	2.78⅜	2.68¼	2.74¼
3.00	2.37	Oct.	2.76½	2.62⅜	2.74¼
2.71½	2.25¼	Dec.	2.64¼	2.51	2.63½
2.75¼	2.33¼	May	2.68¼	2.54¼	2.66½

Chicago Futures

Week July 29, 1957

Crop year from Aug. 8, 1956 High	Low		High for week	Low for week	Close July 29
		Wheat (Old)—			
2.35¾	2.03⅜	Sept.	2.15⅜	2.13	2.15¼
2.46⅜	2.08¼	Dec.	2.19⅜	2.17½	2.19¼
		Wheat (New)—			
2.19¼	2.04¼	Sept.	2.16⅜	2.13¼	2.16
2.23¼	2.09¼	Dec.	2.20¼	2.17⅜	2.20
2.25	2.09½	Mar.	2.21⅜	2.18⅜	2.21¼
2.20¼	2.04⅜	May	2.16½	2.12⅞	2.15¼
		Corn—			
1.46⅜	1.27¼	Sept.	1.34⅜	1.32	1.32¼
1.44	1.21¼	Dec.	1.29⅜	1.26⅜	1.27¼
1.48⅜	1.25	Mar.	1.34¼	1.30⅜	1.31¼
1.39¼	1.28	May	1.36⅜	1.33⅜	1.34
		Oats—			
.77⅜	.63⅜	Sept.	.66⅜	.64⅜	.65¼
.73¼	.66¼	Dec.	.70	.67⅜	.68¼
.75¼	.68⅜	Mar.	.72¼	.70¼	.70½
.74	.70¼	May	.72⅜	.70¼	.70½
		Rye—			
1.53	1.31¼	Sept.	1.30⅜	1.26⅜	1.30¼
1.61⅜	1.17⅜	Dec.	1.34⅜	1.30⅜	1.34¼
1.42¼	1.20¼	Mar.	1.37½	1.33⅜	1.37½
1.52¼	1.20⅜	May	1.37½	1.33⅜	1.37¼
		Soybean—			
		Sept.	2.50⅜	2.41	2.43½
		Nov.	2.44⅜	2.35	2.37½
		Jan.	2.49	2.38⅜	2.41¼
		Mar.	2.51⅜	2.41½	2.44

Winnipeg Cash

	For Week July 29 High	Low	Prev. Week High	Low
Oats—				
2 C. W.	.74	.73¼	.74⅜	.74
3 C. W.	.67	.66¼	.67⅜	.67
Barley—				
1 Feed	.92⅜	.92¼	.92⅜	.91⅜
2 Feed	1.00⅜	.90⅜	.90⅜	.90¼
1 Malt	1.06⅜	1.06¼	1.06⅜	1.05⅜
Rye—				
1 C. W.	1.08⅜	1.06	1.15¼	1.07⅜
2 C. W.	1.08⅜	1.06	•1.15¼	1.07⅜

Chicago Cash

	For Week July 29 High	Low	Prev. Week High	Low
Corn—				
2 Yell.	1.35¼	1.35¼	...	...
Oats—				
H. W.	.71⅜	.68¼	.72	.72

Unlisted Mines, Oils

(By Broker-Dealer's Assoc. of Ont.)

Approximate quotations, 3.30 p.m., July 29, subject to confirmation and change. An asterisk (*) indicates an increase in price; a dagger (†) a decrease in price.

Stock	Bid	Ask	Stock	Bid	Ask
Abenakis	1½	2½	Main Ok	13	16
Abeta	8	9	Manecho	7	9
Abbican	*9	11	Mall RL	13½	17
Advance	7	9	Mar Bird	15	17
Alexander	4	6	Mat Can	7	9
Ama Kir	2½	4	Maree	1	3
Anabar	3	7	Mate Yel	5	7
Anamaq	3½	3½	McCuaig	2	4
Anuwon	7	9	McFinly	7	9
Arctic	2½	3½	Miles RL	1	3
Atl Chib	17	20	Millkirk	5	9
Barima	16	19	Mindust	75	100
Beacon	4	7	Mirado	10	13
Belfast	3	5	Mt Keno	2½	4
B Jack Pt	5	7	Montco	8	10
B Grass	†3	5	Murky F	35	41
B McDud	6	8	Murmac	2	3
Bracemq	15	17	Murry M	†44	47
Braminc	7	10	Nat New	6	8
Bright	1	2	Nasco	11	13
Bruce P	12	14	New Met	10	13
Brunette	4	6	New Aug	5	7
Camiaren	3	5	N Insco	5	7
Camp I	*9½	11	N Redwd	4	5½
Camray	2	4	New Wal	2	4
Can Rad	4	6	Nickel O	5	8
C All M	6	9	Nickel L	†4	6
Can Man	†6	8	Nicoba	8	11
Cnt Hill	16	19	Nipiron	21	25
Caral	20	30	Norcourt	2	4
Cheilew	5	7	Norbeau	55	65
Clinger	4	6	Norford	1	3
Clix	5	6	Normar	1	3
Columbr	3	5	Oceanic	280	300
Columbind	1	3	Oklend	7	9
Comstock	7	9	ORare M	8	10
Con Cop	20½	23	Orofino	†6	8
Conecho	7	9	Ortona	2	4
C Harper	8½	10	Pacemkr	4	6
Crack S	9	11	Pascalis	8	10
C Vauze	7	9	Pax new	35	45
Cordell	9	13	Payne	1	3
Craibbe	10	12	Peach	1350	1500
Croydon	.3	5	Pelangio	3	5
Derlac	1	3	Pickering	8	10
Desmont	1½	2	Picton	6	8
Despina	4	6	Pine P	†900	1000
Destrad	2	4	Pitchvein	5	7
Dom Ex	7	9	Plum N	50	—
Dunvegn	*6	8	Quejo	5	7
Durham	3	4	Quest	1	3
East Lun	3	5	Raglan	105	110
Echo Ind	1	3	Rand M	3	4
El Bon	7	9	Red Brk	5	8
Farcroft	4	6	Redcon	3	6
Flicka	2	4	Redruth	1	3
Forty Fr	20	35	Rhyolite	1	2
Gal Chib	10	25	Richgroup	5	7
Gan Cop	6½	7½	Rio T C	330	350
Gateway	4	7	Romar	18	23
Glenbrk	7	9	Rugged	1	3
Glencona	2½	3½	Russet	3	5
Glen Ec	19	21	Salmita	5	7
G Harker	7	10	Sheldon	9	11
Gord Lab	2½	3½	Sladen Q	75	100
Goldmaq	4	6	St Mary	29	32
Gov Gold	5	7	Slate Bay	3½	5
Grd Chib	60	—	Snow L	5	7
Hedwatr	—	38	S Dufalt	7	9
HG Yng	11	13	Sunbear	2	3
Hornfalt	8	10	Surpass	†92	97
Hot Min	6	7	Starlight	5	7
Hubert L	37	40	Th'crest	21	24
Hudson U	55	60	Tower	5	10
Hucamp	7	9	Tresdor	9	11
Independ	8½	9½	U Ridge	†12	15
Jamaica	8	12	Ungava C	*7	9
Jean Lk	12	15	Viking	9	11
Jerome	3	5	Wadge	3	5½
Kamiac	6½	8	Wesley	9	11
KB Mng	7½	8½	Westall	6½	7½
Kenda P	1	2	West RL	1½	3
Kenog	†11	13	W Wasa	3	5
Lrandona	*10	12	Y David	18	20
Laronge	10	12	**OILS**		
Laroma	3	5	B C Oil	425	500
Larum	9	11	C Dlhi	†1175	1200
L Expan	5	7	C Sup	†3400	3500
L Rnzy	14	18	Harvest	†33	36
Lower Can	1½	3	N Ranch	6	7
Lun Ec	*47	50	O Smoky	5	6
Lynwatn	13	17	Paige Pet	9	13
Magoma	3	5	Sbmarine	†70	74

Investment Trusts

	Divd. pd. cents ▲	Bid	Ask
All-Can. Com. Fd.	12.20(23.63)	6.47	7.04
All-Can. Div. Fd.	16+2(21)	5.74	6.24
Can. Invest. Fund	27(38)	8.91	9.78
Canafund	(123)	36.63	38.46
Champion Mut. Fund	10(14.5)	5.33	5.86
C'wealth Inter	25(21)	7.57	8.32
Corporate Inv.	29(30)	8.66	9.41
Diversified Inc. Shs.	(13)	4.10	4.45
Dom. Equity I.	18+12(33+15)	14.45	14.78
Grouped Inc. (n.)	10.75(22.14‡)	3.97	4.34
Growth Mines		4.49	4.73
Growth Oil & Gas		10.66	11.19
Investor's Mut.	22(31)	10.66	11.52
Leverage Fund	14(22)	5.48	6.02
Mut. Acc. F.	11.96(24.91)	7.11	7.77
Mutual Income	19.39(26.3)	5.41	5.91
Regent Fund Ltd.		4.57	5.02
Resources of Canada		7.41	...
Sav. & Inv. Mutual		5.16	5.64
Sup'vised Amer.	4(17)	6.29	6.35
Sup'vised Executive (1955)		35.23	...
Sup'vised Executive (1956)		28.92	...
Sup'vised Executive (1957)		4.94	5.19
Sup'vised Gr'th Fund	(3●)	2.12	2.14
Sup'vised Inc. Fund	5(19)	3.97	4.01
Timed Invest.	11(21)	†3.05	*3.08
Trans-Can. A	58(102.6)	29.90	...
Do. B	53.8(106.8)	31.75	...
Do. C	10(21.2)	6.30	6.90

†Less or(*) plus stock exchange commission.

▲Paid or payable in 1957, total paid in 1956 in parentheses.

●Plus stock divd.

‡Of which 12.14 pd. in form of tax-free stk. divd. redeemed for cash immediately.

Unlisted Mines, Oils

(Compiled from Quotations by G. E. LESLIE & CO., Montreal

Stock	Bid	Of'r	Stock	Bid	Of'r
Abeia	7	10	Miller Cop	10	15
Americ	27	30	Natl Mal	6	9
Arnora	2	4	New Lorie	4	7
Ass. Dev.	12	14	Nipiron	17	21
Atlas Ch	16	20	Norbeau	55	65
Bald Mnt.	34	37	Norcopr	72	85
Baraca	—	37	Nordeau	94	98
Belmont	5	10	Oklend	6	9
Brosnn Ch	38	42	Ont Nckl n	15	20
Cdn Jave	25½	26	Orefield	60	70
Cent Mng	60	Bid	Montgom	3	5
Ch Coppr	—	30	Pascalis	8	11
Clinger	7	10	Provincial	2	4
Dudson	18	24	Que Cblt	1.60	1.80
Dawmac	—	—	Quedon	21	26
Derogan	—	—	Quejo	6	9
Elwood M	48	54	Rand Mal	2	4
Enterprises	8	Bid	Roymont	—	—
Flicka	4	7	St Jude	—	25
Garland	—	15	Scott Chib	4	6
Gibson	—	10	Selby Mng	—	28
Glencona	2½	3½	Sharbot	—	—
Independ	7	10	So. Bach.	—	6
Inter Asb	5	8	Starlight	4	7
Inter Ex	56	65	Tarpoint	3	4
Kenmac	—	15	Toro Mng	29	Bid
Leadville	—	38	Wesley	10	14
Luc-Echo	43	46	Wedro Lds	—	30
Lyndvue	—	43	Wm Leys	—	12
Main Oka	13	16	West Cop	1.00	1.10
Mrt in Brd	14	17	Yng Dave	17	20

Record of Financing

Sales by Municipalities, Provincial and Dominion Governments, Offerings of Corporation and Securities.

DOMINION

Government of Canada Treasury Bills—Due Oct. 18, 1957, $125,000,000. Issued July 18, 1957. Sold at $99.058 to yield 3.81%.

MUNICIPAL

City of Montreal, Que. — 5¼% debentures, due Feb. 15, 1977, and Mar. 1, 1977, $25,000,000. Issued July 10, 1957. Sold at $94.65 to a syndicate of dealers headed by Lehman & Brothers.

City of Yorkton, Sask. — 5¾% debentures, due Dec. 31, 1957-86, $226,000. Issued June 14, 1957. Sold at $96.70 to Mills, Spence & Co. Ltd.

School Commission for Town of Chicoutimi North, Que. — 5½% debentures, due May 1, 1958-72, $115,000. Issued July 15, 1957. Sold at $96.01 to Credit Quebec, Inc.

School Commission for Mun. of Ste. Foy, Que. — 5½% debentures, due June 1, 1958-77, $1,200,000. Issued July 15, 1957. Sold at $93.02 to Syndicate of Dealers Headed by Banque Canadienne Nationale and J. T. Gendron, Inc.

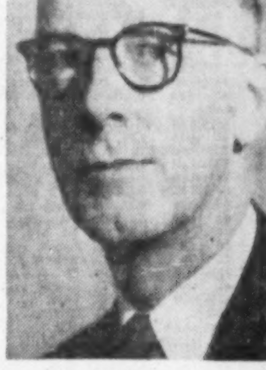
Municipality of the County of Richmond, N.S. — 5¼%, 1-20 year debentures, $49,000. Issued July 15, 1957. Sold at $92.27 to Cornell MacGillivray Ltd. & Stanbury & Co. Ltd.

CORPORATE

Industrial Acceptance Corporation—5½% Secured Notes Series "S" to mature Feb. 15, 1977, $17,000,000. Dated Feb. 28, 1957. Sold privately to Wood, Gundy & Co. Ltd., and Greenshields & Co. Inc.

Okanagan Telephone Co. — 6% General Mortgage Sinking Fund Bonds, Series "C," to mature July 1, 1977, $400,000. Dated July 15, 1957. Offered at $100.00 by Pemberton Securities Ltd.

ANNOUNCEMENT



W. S. DUNLOP

OTTAWA, July 31st, 1957. The Bank of Canada has announced the appointment of W. S. Dunlop of Oldfield, Kirby and Gardner Limited as Director of the Canada Savings Bond Payroll Savings Organization in the provinces of Manitoba, Saskatchewan and Alberta. He succeeds Mr. Sydney C. Stephens of James Richardson and Sons, who occupied the post with outstanding success during the past four years.

Mr. Dunlop brings to his assignment experience in the field through his work as an organizer in many Canada Savings Bond campaigns.

N. M. PATERSON & SONS LIMITED
Grain Division
Grain & Coal Merchant
Steamship Division
Carriers of All Bulk Cargoes
Fort William, Ont. Winnipeg, Man. Montreal, P.Q.

NORRIS GRAIN COMPANY LIMITED
Grain Merchants, Shippers and Exporters
709 Grain Exchange, Winnipeg

NORRIS SECURITIES LIMITED
Dealers in Stocks, Bonds and Grain
212 Notre Dame Ave., Winnipeg

K. A. POWELL (CANADA) LTD.
GRAIN SHIPPERS AND EXPORTERS
GRAIN FUTURES
Owners and Operators
Fort William Terminal Elevator Co. Ltd.
and Powell Transports Ltd.
Head Office—563 Grain Exchange, Winnipeg, Man.
Affiliated Companies—Fort William, Ont., Montreal, Que., Vancouver, B.C.

FEDERAL GRAIN LIMITED
AND
THE ALBERTA PACIFIC GRAIN CO. (1943) LTD.
WINNIPEG CALGARY
County Elevators located in all Prairie Provinces, and Terminals at Fort William, Port Arthur and Vancouver. Cereal and Forage Seed Plant at Winnipeg.
We invite your inquiries regarding feed and seedgrain.

THE WEEK'S QUOTATIONS

Quotations here listed are the official, exchange prices for listed stocks including curb market quotations. For unlisted stocks, quotations by unlisted dealers are given. The Financial Post cannot accept any responsibility for these quotations.

Montreal and Toronto Winnipeg, Calgary and Vancouver

Bid and Ask quotes of Toronto and Montreal exchanges up to press time are published on page 31

Industrial Stocks

WEEK ENDING JULY 26, 1957

Range 1957 High	Low	Div. R'te $	Y'ld July 26 %	Company	Sales	Last July 19	Week end. July 26 High	Low	Close or Latest
1.80	.65	..	..	Abitca Lum.	40100	.80	.84	.70	.73
35½	30	1.70	5.5	Abitibi	7320	31	31½	30	30¾
24¼	21¾	1.12½	4.9	Do. 4½% pf.	1380	22¾	22¾	22½	22¾
9½	7	.50	5.9	Acadia Atlan.	1860	9	8¾	8	8½
95	90	5.00	5.6	Do. 5% pf.	35	90	90	90	90
21	17½	1.20	6.7	Do A	295	18½	18½	18	18
..	..	..	..	Admiral	nil	..	B10½	A12¼	..
8½	6¼	.33	..	Agnew Surp.	1850	8	8	7½	8
9½	8½	.55	6.2	Do. pf.	nil	..	B8¾	A9½	8½

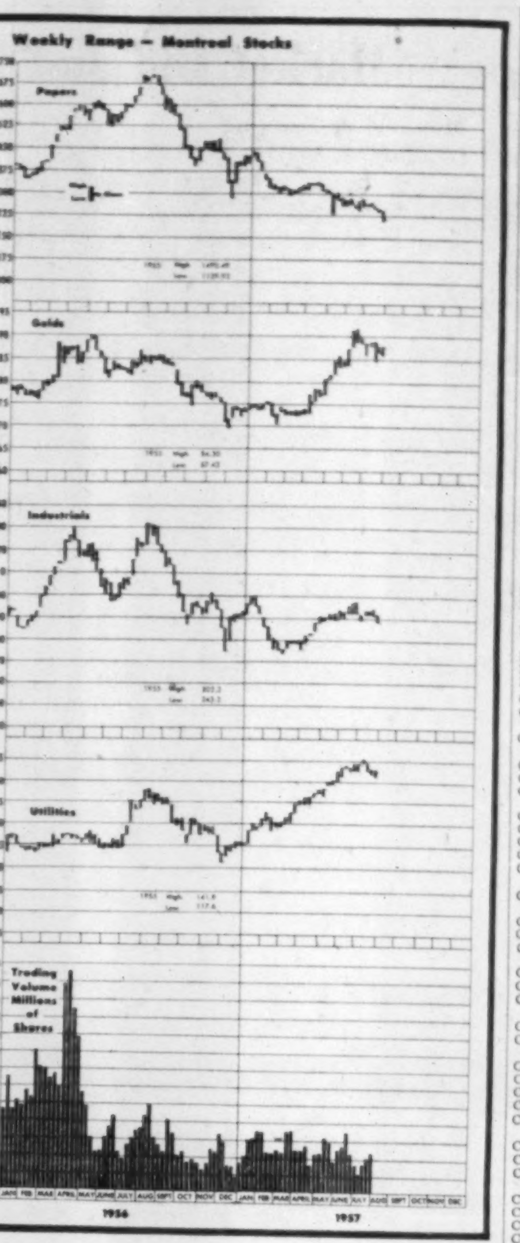
I

Range 1957 High	Low	Div. R'te $	Y'ld %	Company	Sales	Last July 19	High	Low	Close or Latest
60	46½	1.40+†.30		Imperial Bk.	680	54½	54½	54¼	54½
28	25½	1.30+†.10		Imp. Flo-glaze	25	25½	27¼	27¼	27¼
..	..	1.50	5.5	Do. pref.	nil	..	..	..	27½
14	9	.70	..	Imp. Invest. A	1170	12¾	14	12¼	13
69	53	2.00	3.3	Imperial Life	nil	..	B57	A60	60
60	50¾	1.20+†.10		Imperial Oil	14003	55	55⅛	52⅝	52½
12½	10½	.25+.15		Imperial Tob.	7886	10⅞	10⅞	10½	10⅝

Dividends Declared

	This payment $	Date payable	Date of record
Acadia At. Sug.	.12½	Oct. 1	Sep. 10
Do A pf.	.30	Oct. 1	Sep. 10
Do 5% pf.	1.25	Sep. 13	Aug. 30
Agnew-Surpass	.13	Sep. 3	Jul. 31
Aluminium Ltd.	†a.225	Sep. 5	Aug. 9
Alumin. of C. 4% pf	.25	Sep. 1	Aug. 9
Do 4½% pf.	.56	Aug. 31	Aug. 9
Anglo-Cdn. Tel. pf.	.56¼	Aug. 1	Jul. 10
Do A	.15	Sep. 3	Aug. 9
Anthes Imp. pfd.	1.31¼	Oct. 1	Sep. 25
Argus Corp.	.30	Sep. 3	Jul. 31
Do A pfd.	.60	Aug. 1	Jul. 15
Do B	.62½	Aug. 1	Jul. 15
Assoc. Tel. & Tel.	†1.50	Sep. 15	Aug. 15
Do A pf.	†1.00	Oct. 1	Sep. 3
Atlas Steels	.25	Aug. 1	Jul. 7
...			
Scythes & Co.	.25	Sep. 1	Aug. 15
Do 5% pf.	.31¼	Sep. 1	Aug. 15
Shaw. Water & Pwr.	.50	Aug. 23	Jul. 15
Do. A	1.00	Aug. 15	Jul. 19
Do. 4% A pf.	.50	Oct. 2	Sep. 3
Do. 4½% pf.	.56¼	Oct. 2	Sep. 3
Sheraton C. †.15+2%stk.		Aug. 1	Jul. 3
Sher-Will. com.	.45	Aug. 1	Jul. 10
Shirriff-Horsey	.15	Sep. 15	Aug. 8
Do. 5¼% pf.	.33¼	Sep. 1	Aug. 9

(Continued on next page)



Where there have been no transactions during the week covered, the word "nil" is shown under sales and the quotations shown are the bid, ask, and last sale price, instead of high, low and close.

aU. S. funds. aaParticipating divd. •Dividend deferred. aStock divd. ††Initial. ‡Shown in francs. ■On arrears. *Payable in 1956 to date. †Less than Board lot. ‡Note: When sales show nil the figures are bid, ask and latest sale. §In arrears. ¶Payable in 1957 to date. ‡Extra paid in 1956.

Mining Stocks

WEEK ENDING JULY 26, 1957

Range 1957 High	Low	Company & Dividend ($)	Sales	Last July 19	Week Ending July 26 High	Low	Close or Latest
.16	.09	Acadia Ur.	9000	.11	.10	.09	.09
12.75	8.00	Aconic	35980	13.25	13.00	12.50	12.50
13.37½	7.25	Do. v.t.	14050	13.00	13.00	12.50	12.50
.12	.07	Ad Astra	1000	.08	.08	.08	.08
10.12½	5.00	Advocate	5275	6.25	6.35	5.50	6.00
.25	.25	Agassiz	nil	...	....	A.25	.25
.10	.05	Ainsworth	17500	.06	.05½	.05	.05
.44	.26	Akaitcho	1150	.30	.31	.30	.30
.28	.09½	Alba	16581	.10	.10	.09½	.09½
25.25	18.25	Algom	2570	19.25	19.75	19.00	19.50
95.50	92.00	Do. 5% debs.	110	93.50	93.50	92.50	92.50
17.00	8.90	Do. warr.	4230	11.00	11.25	10.50	10.50
21.50	21.50	Do. v.t.	nil	...	....	....	21.50
.70	.35	Alscope	4800	.50	.44	.36	.44
.11	.07	Alta.	500	.08½	.08	.08	.08
.29	.15	Amal. Lard.	500	.18½	.16½	.16½	.16½
2.00	1.75	Amalg. R.M.	3842	...	2.00	1.75	1.85
.17	.08	Amer'm.	13000	.09	.09½	.08	.09
1.98	1.25	Am. Neph. .04	5100	1.21	1.32	1.25	1.30
.24	.12	Amer. Stand.	5500	.13	.15	.14	.14
.50	.30	Amos Lith.	nil	...	....	....	.30
2.00	1.10	Anacon	11281	1.20	1.20	1.11	1.15
13.00	11.50	Anglo-Hur. .50	nil	...	B10.00	A11.37½	11.50
.94	.49	Anglo-Rou.	3000	.50	.53	.53	.53
.70	.45	Ansil	3694	.65	.69	.45	.45
.30	.15	Anthonian	6500	.16	.17	.16	.16
2.20	1.30	Arcadia	96300	1.50	1.53	1.30	1.52
.82	.50	Do. warr.	10300	.64	.60	.58	.59
1.85	.37	Area	31500	1.12	1.20	.85	.86
.19	.09	Arjon	12000	.10½	.10½	.09	.10½
.10	.05	Arno	1000	†.04	.05	.05	.05
.17	.08½	Atlas Sulp.	16000	.14	.12	.10	.10
.14	.09½	Atlas Y'fe	4300	.10	.10½	.09½	.09½
1.16	.20½	Atlin-Ruff	91860	.60	.60	.51	.59
.17	.08	Aubelle	21200	.09	.09	.08½	.08½
.20	.10	Aull	nil	...	B.09½	A.11	.10
.39	.19	Aumacho	15600	.20	.20	.19	.20
.21	.09	Aumaque	21000	.09½	.10	.09	.09½
2.01	1.62	Aunor .16	1760	1.85	1.95	1.80	1.95
.12½	.06	Avillabona	9230	.08	.08	.08	.08
		B					
1.75	.85	Baker Talc	700	1.25	1.30	1.25	1.30
.14	.04	Band Ore	6500	.05	.05	.04½	.05
.35	.13	Bandowan	4000	.18	.20	.15	.15
.42	.23½	Bankeno	3200	.28	.28	.27	.28
.12½	.09	Bankfield	3200	.09½	.09	.09	.09
.45	.25	Barnat	1750	.27	.27	.27	.27
.32	.10	Barvallee	1000	.10	.12	.12	.12
.84	.40	Barvue	2300	.43	.40	.40	.40
.73	.64	Barymin *.05	3100	.65	.69	.65	.65
.92	.60	Base Metals	76125	.76	.73	.70	.73
.47	.28	Baska	26400	.31	.33	.30	.30
1.50	.33	Bateman	8700	.36	.38	.35	.35
.11	.06½	Beatrice	4500	.06½	.07½	.06½	.06½
2.89	.60	B'lie-Duq.	20279	.80	.79	.60	.60
1.75	.90	Beaucage	6300	.92	1.00	.90	.90
.40	.17	Beaver L'ge	42800	.24	.26	.20	.22
3.15	1.58	Belcher	111645	2.73	2.65	2.40	2.60
.76	.40	Bellechase	78050	.72	.72	.70	.72
.23	.13	Belle-Chib.	8500	.16	.15	.14	.14
1.93	1.55	Belleterre .10	nil	...	B1.65	A1.99	1.77
2.75	1.50	Bethle'm	14800	1.80	1.85	1.60	1.65
.32	.15½	Bevcon	23485	.15½	.15½	.15½	.15½
.12	.09	Bibis-Yuk.	6000	.08	.07½	.07½	.07½
2.65	1.72	Bicroft	28550	1.80	1.90	1.72	1.78
1.70	.90	Do. warr.	4250	1.00	1.00	.90	.93
.70	.15	Bidcop	12500	.21	.19	.15	.15
1.12	.65	Black Bay	2700	.75	.71	.70	.71
.14	.07	Bonville	2500	.07½	.08	.07	.08
.17	.08½	Bordulac	19500	.13	.12½	.10	.10½
.18	.03	Boreal	20000	.03½	.04	.03½	.04
.38	.15	Bornite	11200	.18	.18	.15	.15
.18½	.10	Bouscadillac.	4000	.10	.11	.10	.11
1.58	.48	Bouzan	29100	.56	.57	.51	.55
.10	.06	Boymar	3000	.07	.07	.06½	.06½
		Bralorne					
5.50	3.75	§.20+‡.10	1570	3.95	4.00	3.90	3.95
.90	.38	Brilund	44500	.43	.45	.38	.38
1.07	.69	Broulan Reef	4550	.74	.70	.69	.70
.19	.08	Brunhurst	18000	.08	.09	.80	.08½
.15	.07	Brunsman	11000	.08	.08	.07½	.07½
12.50	6.10	Brunswick	1655	6.70	6.35	6.10	6.50
.11½	.08	Buffadison	6750	.09½	.09	.08	.08
2.50	.67	Buff. Ank. *.05	7200	.90	.95	.87	.91
.21	.11	Buff. Can.	12594	.13	.13	.13	.13
.11½	.06½	Buff. R.L.	8000	.07½	.07½	.07	.07
4.50	3.75	Bulolo §.25	1724	3.93	3.95	3.75	3.95
.15½	.09½	Bunker Hill	8800	.11	.12	.10½	.12
.86	.26	Burchell	39600	.50	.50	.42	.42
1.30	.50	Burnt Hill	29600	.55	.73	.54	.72
.20	.15	Burrex	1000	.15	.20	.20	.20
		C					
.11½	.06	Calumet	2500	.06	.06	.06	.06
13.50	8.90	Camp. Chib.	12010	8.90	9.90	8.90	9.85
		Camp. R.L.					
6.20	5.05	§.21¾+.05	300	†4.80	5.20	5.20	5.20
		Canadian					
.34½	.11	Canadian Ast.	7592	.12	.12½	.11½	.12½
2.70	1.20	Cdn. Dyno	45376	1.52	1.65	1.45	1.48
.45	.24	Cdn. Lith.	9700	.25	.26	.24	.25
.36	.27	Cdn. Mal.	1000	.27	.29	.29	.29
.40	.24½	Cdn. N. Inca	11412	.27	.27	.24½	.27
.14	.07	Cdn. Thor	6736	.08	.08½	.07	.08
.62	.36	Canalask	23700	.42	.43	.36	.43
.69	.18	Canam	3700	.27	.25	.24	.25
.56	.30	Candore	3183	.36	.45	.35	.45
1.02	.46	Can-Erin	16523	.50	.49	.46	.46
5.60	2.46	Can-Met	25373	3.45	3.50	3.35	3.40
4.60	1.42	Do. warr.	4550	2.60	2.65	2.35	2.45
.55	.18	Canuba	13500	.18	.20	.18	.18
.10	.06	Canusa	nil	...	....	....	.07½
.54	.23	Capital	6000	.30	.25	.23	.23
.57	.22	Captain	16400	.28	.27	.22	.23
.73	.45	Cariboo	3900	.50	.53	.46	.53
.19	.09	Carnegie	14500	.09	.11	.10	.11
.07½	.04	Cartier M.	12500	.05	.05	.04	.04
8.50	6.25	Cassiar Asb.	2925	6.85	6.95	6.65	6.65
5.35	3.00	Castle-Tre. *.15	nil	...	B4.10	A4.60	4.75
7.00	5.00	Cayzor	3100	5.15	5.25	5.00	5.25
.15	.05	Can. Man.	3000	.07	.08	.06	.06
2.90	1.25	Cen. Pat.	19379	1.92	1.90	1.67	1.70
.15½	.09½	Cen. Porc.	5000	.10	.10	.09½	.09½
.28	.07½	Cheskirk	54700	.10	.10	.08	.09
.36	.21½	Chesterville	13060	.25	.25	.21½	.21½
4.25	1.96	Chib. Jac.	28696	2.10	2.15	1.96	2.10
.60	.19	Chib. K'rand	20700	.21	.23	.19	.20
4.25	1.50	Chib. Min.	10800	1.75	1.90	1.50	1.60
1.52	.74	Chimo	19100	1.05	1.01	.91	.95
.40	.10	Chipman	11000	.12	.11	.10	.10
3.65	2.85	Chromium	nil	...	B2.80	A3.25	3.00
.40	.16	Cleveland	29200	.19½	.19½	.17	.18
....	....	Clix	nil	...	....	....	.12
7.00	3.00	Coast Cop.	nil	...	B2.25	A3.00	3.00
.55	.36	Cobalt	20513	.55	.55	.52	.52
1.25	.75	Cochenour §.03	13900	1.00	1.10	1.00	1.05
.85	.28	Cody-Reco.	16800	.44	.44	.35	.40
.17	.10	Coin Lake	12000	.10½	.11	.10	.10½
2.14	.90	Col'stream	46300	.95	1.01	.90	.91
.58	.30	Coleman A	nil	...	B.40	....	.45
.58	.25	Do. B	nil	...	....	....	.40
.16	.08½	Colomac	14000	.09½	.09	.08½	.09½
2.80	1.51	Coniagas	6610	1.70	1.70	1.51	1.60
.45	.35	Coniaurum	3500	.39	.38	.38	.38
.44	.25	Conkey	6200	.31	.30	.28	.28
.21	.12	Conro	7000	.13	.13	.12	.13
.49½	.20	Con. B'keno	31799	.20½	.22	.20	.20
.23	.12½	C. Beta	1300	.13	.15	.15	.15
.27	.10	C. Bi-Ore	3000	.16	.17½	.14	.17½
.55	.22	C. Callinan	21300	.30	.28	.25	.26
.18	.10	Con. C. Cad.	7000	.10½	.11	.10	.11
25.37½	12.75	C. Denison	20825	18.50	18.50	17.50	17.87½
17.50	5.80	Do. warr.	12695	10.25	10.50	9.75	9.95
3.50	2.60	C. Disc'y §.10	7594	2.90	2.90	2.75	2.75
2.05	1.20	C. Fenimore.	9054	1.50	1.55	1.47	1.48
.50	.16	Do. warr.	nil	...	B.25	A.25	.25
.11	.08	C. Gillies	10000	.08	.09	.08	.09
.45	.18	C. Gold. Arr.	5500	.31	.30	.25	.25
.00½	.00½	C. Goldfield.	nil	...	B.01	....	.00½
.35	.15	C. Guayana	5700	.15	.17	.15	.16
1.38	.67	C. Hall'well	51100	.70	.73	.68	.68
3.75	2.45	C. Howey	600	2.75	2.50	2.45	2.45
1.09	.28	C. Marbenor.	16833	.43	.43	.40	.41
.25	.15	C. Marcus	nil	...	B.18	A.20	.19
.18	.09½	C. Monpas	nil	...	B.10	A.12	.09½
.82	.22	C. Morrison	17500	.59	.59	.94	.51
.60	.42	C. Mosher	8900	.51	.50	.45	.45
.38	.16½	C. Negus	65941	.34	.35	.27	.27
.16	.08	C. Nich.	7000	.10	.10½	.08½	.08½
1.05	.60	C. Northland	7783	.70	.75	.66	.70
.22	.15½	C. Pershcourt	500	.16	.16	.16	.16
.95	.65	Con. Que. G.	nil	...	B.80	A.85	.80
.22	.09	C. Que. Y.	8500	.11	.11	.09	.09
.30	.15	C. Red Pop.	21694	.17	.17	.16	.16
1.89	.43	C. Regcourt	1380800	.92	.93	.43	.50
.18½	.08	C. San'rm	21000	.10	.10	.08	.10
		Con. Smelt.					
28.75	22.00	.80+.80	12803	23.00	23.00	22.00	22.00
3.50	1.05	C. Sud'ry	139925	1.30	1.44	1.25	1.28
.40	.17	C. Tung.	15700	.19	.20	.17	.17½
5.25	2.30	Cont. Min.■■	8300	2.70	2.85	2.45	2.85
1.20	.65	Cont. Potash.	3400	.90	1.00	.85	.95
7.50	4.85	Conwest	3300	5.00	5.15	4.85	5.15
1.23	.33	Copper Corp.	9600	.45	.41	.40	.41
.88	.35	Coppercrest	6600	.45	.47	.45	.46
.32	.11	Copper Man.	21904	.12	.13	.11	.11½
5.20	2.90	Cop. Rand	42272	3.10	3.30	2.90	3.30
.14½	.06	Cortez	8000	.06	.06	.06	.06
1.09	.55	Coulee	1020	.68	.62	.60	.62
.15	.09	Cournor	2100	.09½	.09	.09	.09
1.70	1.10	Cowichan	15000	1.20	1.29	1.17	1.25
.15	.08	Crestaurum	nil	...	B.08	A.09	.08
.28	.13	Croinor	3000	.14½	.13	.13	.13
.42	.15	Crowpat	4500	.18	.18½	.15	.15
....	....	Cryderman	nil	...	B.00¼	A.01	.00¾
.36	.10	Cusco	42037	.12	.12	.10	.11½
		D, E, F					
.19	.09	Dablon	22155	.10	.19	.15	.19
.55	.22	Daering	500	.33	.32	.32	.32
.17	.07	Daine	54700	.10	.10½	.08	.08½
.47	.20	D'Aragon	13100	.21	.22	.20½	.21
.60	.35	Decoursey B.	7375	.45	.49	.45	.45
.20	.06½	Do. warr.	2500	.07½	.09	.06½	.06½
.34	.16½	Deer Horn	2000	.18	.18	.16½	.17
.16	.11	D'Eldona	6333	.12	.12	.11	.11
1.15	.78	Delnite .04	3200	1.01	1.01	.95	1.00
.21	.10	Diadem	75800	.11	.12	.10	.10
.18	.12	Dickstone C.	nil	...	....	A.14	.12
		Dome					
14.25	12.00	.70+§.05	2893	12.50	12.75	12.25	12.25
.37	.16	Donalda	19700	.18	.19	.16½	.17
.10	.03	Doreen	1000	.04½	.04½	.04½	.04½
.73	.24	Duvan	2100	.28	.29	.27	.29
.26	.13	Duvex	29300	.14	.18	.14	.15
.16	.09	East Amph.	4600	.10	.10	.09½	.09½
1.47	1.10	East Mal. §.05	23025	1.23	1.24	1.18	1.22
		East Sull.					
5.25	2.80	§.15+.10	11780	2.95	3.00	2.80	2.90
.65	.35	East. Asb.	2000	.48	.42	.40	.40
.50	.20	E. Metals	12200	.20	.24	.20	.23
4.10	2.61	E. Min.	27531	2.75	2.85	2.61	2.61
.40	.28	Elder	3750	.31	.31	.31	.31
.37	.20	Eldrich	3500	.20	.20	.20	.20
.59	.18	El Pen-Rey	38560	.22	.23	.20	.22
.82	.20	El Sol	60034	.25	.24	.20	.22
1.03	.42	Eureka	89550	.57	.64	.42	.62
.49½	.25	Explor. All.	9100	.28	.30	.28½	.29
.29½	.15	Fab. Met.	2000	.18	.18	.18	.18
		Falconbridge					
42.75	30.00	§.50+.10	7725	32.00	34.25	31.00	34.00
.25	.14	Fano	2000	.15	.16½	.16½	.16½
3.20	1.46	Faraday	17790	2.55	2.55	2.30	2.36
1.95	.85	Do. warr.	2100	1.37	1.42	1.20	1.21
.41	.15	Farw't Tung.	12000	.20	.20	.18	.18
.83	.72	Fatima	86700	.83	.82	.75	.75
.24	.14	Federal	6000	.15	.14½	.14	.14
.01	.00½	Flin Flon	nil	...	B.00¼	A.01	.01
9.35	5.90	Florida	49403	9.05	9.15	8.75	8.90
.14	.06	Fontana '45	3000	.06	.08	.06	.06
.35	.30	Forty-Four	nil	...	....	A.40	.30
.21	.09	Francoeur	18090	.09	.11	.09	.10
3.00	2.40	Frobisher	12655	2.55	2.55	2.40	2.40
81.00	75.25	Do. 4% deb.	10	80.00	80.00	80.00	80.00
.22	.12	Fundy Bay	43900	.14	.20	.12	.18
		G					
.25	.11	Gaitwin	11700	.12	.12½	.11	.11
1.30	.84	Galkeno	70164	1.10	1.08	.84	.95
27.50	29.75	Gaspe Cop.	460	31.00	31.00	30.00	30.00
18.87½	13.00	Geco	3032	14.00	14.00	13.00	13.50
.42	.20	Genex	34300	.33	.32	.26½	.27
1.25	.62	Geo-Scient.	2500	.65	.65	.63	.63
.27	.10	Giant Mas. *.06	14448	.12½	.13	†.08	.13
5.80	3.85	Giant Yk. §.15	4413	4.00	4.20	3.85	4.00
1.40	1.20	Glacier	975	1.25	1.25	1.20	1.25
.70	.35	Glenn Ur	14972	.36½	.38	.35	.35
.28	.19½	Goldale	3500	.22	.23	.22	.23
.16	.09½	Gold Crest	11000	.11	.11	.09½	.09½
.10½	.06	Gold Eagle	7400	.07	.07	.06	.06
.04½	.01	Gold Lake	nil	...	B.02¼	A.03	.03
.45	.22	Gold. Age	60600	.34	.44	.30	.41
2.10	.85	Gold. Man	1150	.95	.91	†.76	†.76
.34	.18	Goldfields	2000	.18	.18	.18	.18
.35	.13	Graham R.	3000	.13½	.16	.13	.13
11.00	8.00	Granby §•.25	300	8.00	8.50	8.50	8.50
.27½	.10	Grandines	11700	.11	.11	.10½	.11
5.60	2.00	Granduc	4410	2.35	2.35	2.15	2.15
.17	.12	Grandview	nil	...	B.07	....	.12
.03	.03	Great Falls	nil	...	B.00½	A.02	.03
.67	.36	Greyhawk	30600	.39	.40	.38	.40
.13	.07	Gui-Por. Ur.	2500	.07	.07	.07	.07
.49	.13½	Gulch	11000	.19	.20	.16	.18
.14	.09½	Gulf Lead	7000	.10½	.09½	.09½	.09½
21.75	17.37½	Gunnar G.	9376	17.75	18.25	17.37½	18.25
14.50	9.85	Do. warr.	5850	10.00	10.25	9.85	10.25
.15	.06½	Gwillim L.	15600	.07	.08½	.06½	.06½
		H, I, J					
.21	.07	Haitian	7500	.08	.08½	.07	.07
2.00	1.70	Hallnor §.10	900	2.00	1.76	1.70	1.70
.09½	.02½	Hamil	nil	...	B.04	A.06	.04½
.18	.10	Hard Rock	10940	.12½	.13	.12½	.12½
.62	.17	Harr. Min.	26450	.23	.22½	.17	.20
.27	.15	Hasaga	nil	...	B.17	A.20	.17
.17	.09½	H'd of Lakes	6000	.10½	.10	.10	.10
1.07	.50	Headway	15600	.62	.62	.50	.51
.18	.07½	Heath	45050	.08½	.08½	.07½	.08
.12½	.06	Heva	1500	.06	.06½	.06	.06
2.00	.82	High.-Bell §.05	3200	1.35	1.35	1.41	1.41
		Hollinger					
36.00	23.25	24+§.26	8780	32.50	33.25	32.00	32.75
7.00	4.65	Hoyle	4585	5.40	5.40	4.95	4.95
		Hudson Bay					
86.50	63.00	§3.75+‡1.00	2980	66.37½	67.50	65.75	65.75
.65	.08	Hudson R.	38500	.15	.15	.08	.12
.46	.21½	Hugh Pam	2500	.22	.22	.21½	.22
.24	.11	Indian L.	40200	.14½	.15	.13	.13
.90	.61	Inspiration	7250	.65	.67	.65	.67
.30	.18	Int. Ceramic	3700	.24	.22	.18	.18
		Int. Nickel					
111.00	92.50	§•2.60+‡1.15	18710	94.75	95.00	92.50	93.75
.41	.20	Int. Ranwick	20100	.28	.28	.20	.20
2.20	1.01	Irish Cop.	5500	1.20	1.20	1.04	1.10
5.20	2.60	Iron Bay	4475	4.05	4.00	3.75	4.00
.02	.01½	Island Lake	nil	...	B.00¼	A.02	.02
.84	.16	Iso Uran.	32600	.43	.42	.35	.35
.28	.19½	J. Waite §.02	9000	.24	.23½	.20	.23½
1.35	.54	Jacobus	29400	1.15	1.16	1.08	1.15
.13	.03	Jardun	15100	.03½	.04	.03	.03½
.96	.36	Jaye	27337	.42	.41	.36	.38
.65	.19½	Jeanette	233221	.58	.65	.53	.63
.62	.17	Jellicoe	15095	.19	.20	.18	.19
.28	.10½	Joburke	43400	.17½	.21	.17	.20
.73	.34	Joliet Que.	33560	.36	.37	.34	.37
.23	.12	Jonsmith	22100	.15	.15	.13½	.14½
1.05	.65	R. J. Jowsey	5969	.67	.69	.65	.66
		K, L					
.18	.05	Kenville	32500	.08	.08	.07	.08
17.50	13.50	K.-Addison .80	5665	14.12½	14.25	14.00	14.25
1.65	.49	Kerr Lake	120092	1.30	1.65	1.22	1.65
2.80	1.48	Kilembe	9810	1.61	1.75	1.48	1.75
.98	.50	Do. warr.	1000	.50	.60	.52	.60
.28	.10	Kirk. H. Bay	29950	.12	.13	.10	.12½
1.34	.71	Kirk. Min.	8179	.82	.88	.71	.71
.22	.12	Kirk. Town.	19300	.17½	.20	.18	.18½
.23	.11	Kontiki Ld.	9500	.11	.13	.11	.11
.03	.01½	Koot. Base	nil	...	B.01	A.02	.02
23.00	18.00	Labrador §.25	3355	22.50	23.87½	[illegible]	22.75
1.60	.90	Lk. Cinch	15375	1.23	1.19	1.05	1.09
18.5	1.01	L. Dufault	14200	1.13	1.15	1.01	1.15
.16	.09½	L. Lingman	23000	.10	.10	.09½	.09½
.39	.14	L. Osu	3000	.21	.21	.19½	.19½
8.00	3.75	L. Shore *.10	1565	6.30	6.40	6.25	6.25
.19	.15	L. Wasa	nil	...	B.15	A.17½	.16
4.25	3.00	La Luz .10	nil	...	B3.65	A3.75	3.65
2.85	2.10	Lamaque §.10	nil	...	B2.40	A2.55	2.43
1.53	.73	Leitch G. §.03	20550	1.20	1.20	1.05	1.08
.17	.09	Lencourt	12000	.10	.09½	.09	.09
.42	.12	Lexindin	37500	.17	.16	.13	.15
.13½	.06	Lingside	1200	.06½	.07	.06½	.07
.90	.35	Lithium	300	.38	.35	.35	.35
3.50	1.85	Little L.L.	7935	3.00	3.00	2.70	2.71
.13½	.07	Lomega	19026	.08	.09	.07½	.09
1.70	1.00	Lorado Ur.	33600	1.05	1.10	1.00	1.10
1.49	.65	Do. warr.	5200	.70	.75	.65	.65
.23	.10	Louvicourt	1100	.12	.14	.14	.14
.80	.29	Lyndhurst	26450	.30	.30	.29	.30
.11	.07½	Lynx Yk.	nil	...	B.07½	A.08½	.07½
		M					
2.20	1.72	Macassa	7250	2.15	2.17	2.15	2.15
.65	.35½	MacDonald	6850	.40	.40	.35½	.40
.18	.08	Macfie	16800	.09	.09	.08	.08
1.21	.95	Macleod	11750	1.07	1.10	1.07	1.07
		Mad. R.L.					
2.05	1.42	§.05+‡.10	3753	1.50	1.50	1.42	1.45
.11½	.06	Magnet	4500	.06½	.07	.06	.06
.11	.05½	Majortrans	16500	.05½	.06½	.05½	.05½
1.85	1.25	Malartic §.05	17925	1.50	1.55	1.45	1.50
.34	.13	Maneast Ur.	24400	.19	.20	.16	.17½
.62	.19	Maralgo	20000	.25	.27	.25	.25½
.15	.09	Marcon	4547	.09½	.10	.09½	.09½
2.10	1.13	Maritimes	50750	1.17	1.30	1.15	1.26
.21	.11	Martin McN.	10600	.13	.14	.12	.12½
....	....	Massberyle	nil	...	....	....	.25
.60	.41	Matachewan	nil	...	B.45	A.60	.55
.89	.33	Maybrun	16294	.36	.38	.35	.37
		McIntyre					
116.00	71.50	2.00+§1.00	810	107.50	108.50	106.00	106.25
.30	.17	McK. R.L.	nil	...	B.18	A.20	.18
.20	.09	McMarmac	7220	.09½	.09	.09	.09
.53	.30	McWatters	10900	.37	.39	.35	.36
.45	.25	Mentor Exp.	8500	.30	.30	.25	.28
.55	.23	Mercedes	17510	.37	.37	.32	.37
2.08	1.10	Merrill Is.	22500	1.15	1.35	1.10	1.30
.24½	.13	Meta Ur.	25600	.13	.16	.13	.13
1.92	1.20	Mid-Chib.	26600	1.53	1.55	1.30	1.36
1.70	1.23	Midrim	24537	1.49	1.50	1.45	1.47
.63	.18	Midwest	10000	.20	.20	.19	.20
4.45	1.61	Milliken L.	25035	3.00	3.00	2.76	2.80
.17	.09½	Mindamar	9000	.10	.10	.09½	.09½
21.25	14.50	Mng. Corp. §.50	1020	15.12½	15.00	14.50	15.00
.45	.20	Min. End.	15550	.26	.28	.22	.23
.30	.11	Min. Ore	15528	.15	.15½	.11	.14
.65	.17	Mogador	5200	.17	.20	.17	.17
2.05	1.15	Mogul	6550	1.23	1.25	1.21	1.23
1.75	.98	Molyb'nite	nil	...	B1.38	A.145	1.42
1.09	.66	Moneta *.05	6550	.79	.82	.75	.75
1.03	.24	Monpre	3400	.45	.35	.25½	.35
2.65	1.62	Montgary	29100	1.90	1.97	1.71	1.73
1.16	.74	Multi Min.	2700	.80	.79	.75	.75
		N					
.84	.40	Nama Cr.	3300	.41	.41	.41	.41
.63	.28	Nat. Ex.	38800	.31	.32	.28	.29
.28	.10	Nealon	22000	.11½	.12	.10	.10
.46	.18	Nello Min.	nil	...	B.18½	A.26	.18
.90	.43½	Nesbitt L.	20800	.52	.51	.43½	.46
.23	.09½	N. Alger	8300	.12	.11	.09½	.10
.67	.25	N. Athona	13080	.31	.33	.25	.32
.12½	.08	N. Bidl'e	11000	.10	.11	.08½	.08½
.56	.23	N. Calumet	2200	.28	.27	.27	.27
.35	.10	N. Cronin	8800	.30	.35	.25	.25
1.29	.42	N. Delhi	61350	.95	.94	.80	.89
1.55	1.22	N. Dick'n §.05	1930	1.42	1.42	1.36	1.44
.62	.16	N. Formaque	18500	.18	.18½	.16	.16
.24	.11	N. Fortune	300600	.12	.18	.11	.17
.24	.10	N. G'dvue	6812	.10	.11	.10½	.11
.36	.16½	N. Har'na	25400	.28	.30	.24	.25
.48	.18½	N. H'ridge	5700	.20	.19	.19	.19
.35	.18½	N. Hosco	2000	.22	.20	.18½	.20
.21	.08½	N. Imperial	nil	...	B.05	A.09	.09
.15½	.07	N. Indian	400	.07	.07	.07	.07
.49	.10	N. Jack Lake	1500	.12	.12	.10½	.12
.25	.10	N. Jason	15700	.10	.11	.10	.10
.26	.12	N. Kelore	22000	.13	.14½	.12	.12
.53	.30	Newlund	51655	.39	.43	.36	.39
1.34	.60	N. Man.	15800	.65	.70	.60	.70
.52	.17	N. Minda-S.	14500	.20	.22	.17	.19½
.20	.10	N. M'l'que	29025	.15	.15	.13	.15
.13	.08	Newnorth	4000	.08½	.08½	.08	.08
2.00	1.40	N. Pac. Coal.	500	1.72	1.55	1.55	1.55
.20	.07½	N. Rouyn	3300	.09	.09	.08	.08
.14	.07	N. Santiago	19000	.07	.07	.07	.07
.12	.07	N. Senator	2000	.09	.08½	.08	.08
.26	.15	N. Taku	2500	.18	.16	.15½	.15½
.12	.06	N. Vinray	1500	.06½	.07	.06	.07
.25	.11½	N.W. Amulet	1500	.15	.15	.15	.15
5.00	2.59	Nickel Rim	3900	2.70	2.80	2.65	2.68
3.35	2.00	Nipissing	12550	2.07	2.05	2.00	2.01
.14½	.07	Nisto	10550	.08	.08	.07	.07½
.11½	.07	Nocano	3000	.07½	.07½	.07	.07½
		Nor. Acme					
.45	.19	*.01½	7300	.20	.20	.19½	.19½
57.50	46.50	Noranda 2.00	5318	49.00	49.00	46.50	47.25
.34	.12	Norgold	24806	.21	.22	.20	.22
.13½	.08	Norlartic	1200	.08	.08	.08	.08
6.10	3.25	Normetal §.26	4407	3.30	3.45	3.30	3.40
1.59	.76	Norpax	256593	.93	.94	.76	.80
.65	.30	Norsym'e	87750	.41	.40	.31	.35
.27	.19	N.A. Asb.	4100	.20	.23	†.15	.22
1.80	1.25	N. Am. R.M.	1100	1.50	1.50	1.50	1.50
1.67	.99	N. Rankin	31325	1.27	1.30	1.15	1.19
2.10	1.35	North Can.	900	1.55	1.40	1.40	1.40
9.00	5.30	Northspan	47498	5.95	6.50	5.75	6.35
6.80	4.25	Do. warr.	8575	4.55	4.80	4.40	4.65
.22	.10	N.W. Vent	3500	.10	.10	.10	.10
.30	.15	Norvalie	7500	.18	.20	.18	.19
.05	.02	Nuclear	nil	...	B.02½	A.03	.02½
.45	.29	Nudulama	1000	.31	.31	.31	.31
		O					
.33	.10	Obalski	6800	.12	.13	.12	.13
.11	.07	Obaska	4000	.07½	.07	.07	.07
.92	.50	O'Brien *.02	9950	.61	.60	.59	.60
.23	.08	Ogama	13000	.08	.09	.08	.09
.80	.25	Oka	6500	.26	.27	.25	.25
.47	.27	O'Leary	25470	.32	.33	.27	.27
.54	.25	Opemisca	7500	.30	.29½	.25	.25
14.75	9.35	Opemisca	12571	11.12½	11.37½	10.12½	11.00
.80	.11	Orchan	41000	.30	.46	.34	.35
.43	.18	Orenada	49100	.32	.34	.23	.25
.69	.26	Ormsby	7100	.40	.37	.30	.36
.54	.27	Osisko	29800	.39½	.44	.38½	.39
		P, Q					
.17½	.09	Pac. East.	124550	.16	.17	.15	.15½
1.40	.47	Pac. Nickel	25760	1.38	1.33	1.12	1.18
.57	.35	Pamour P	2600	.43	.44	.42	.43
.13	.08½	Paramaque	58500	.09½	.11½	.08½	.11
.10	.07	Parbec	7000	.07	.07	.07	.07
1.28	.54	Pardee	21365	.74	.78	.72	.73
.34	.14	Partridge	11000	.28	.28	.27	.27
.97	.55	Pater	29600	.80	.87	.75	.81
		Pato Cons.					
5.20	3.70	§.50+‡.75	1500	3.75	3.85	3.70	3.75
.27	.18	Paudash	2500	.27	.25	.23	.23
.26½	.18	Paymaster	16100	.20	.20	.18	.19
		Pend Oreille					
3.40	2.35	*•.12½	100	2.35	2.40	2.40	2.40
.45	.20	Pennbec	15000	.24	.25	.20	.25
.88	.27	Perron	164075	.65	.65	.53	.55
1.60	.90	Pickle Crow	8480	1.07	1.09	1.00	1.08
		Pioneer G.					
1.75	1.20	*.12½	4100	1.25	1.35	1.30	1.33
.15	.07	Pitch Ore	7500	.10	.10	.08	.08½
.15	.07	Pitt G.	12500	.07½	.07½	.07	.07
13.25	10.25	Placer §.50	5930	10.50	11.00	10.25	10.87½
.17	.05½	Porc. Prime	nil	...	B.06½	A.07½	.06
.75	.18	Portage	32100	.23	.22	.18	.18
1.00	.50	Powell R.	3500	.72	.69	.65	.65
.13	.07	Prem. Bord.	26000	.09	.10	.08	.08
8.80	6.75	Preston .08	46695	7.75	7.75	7.25	7.60
8.35	5.70	Pronto	1815	6.15	6.10	5.85	6.00
3.95	1.80	Do. warr.	2460	2.05	1.95	1.90	1.90
2.30	1.16	Prospectors	6090	1.72	1.77	1.68	1.68
.18	.09½	Purdex	31800	.11	.11	.09½	.10
.75	.41	Quatsino	14925	.44	.44	.41	.44
.53	.22	Que. Ascot	3678	.28	†.35	†.19	.25
2.34	.87	Que. Chib.■	131350	1.03	1.03	.87	1.00
1.25	.59	Que. Cop.	8340	.60	.65	.60	.61
.28	.10	Que. Lab.	31500	.11	.11	.10	.10½
10.50	7.45	Que. Lith.	1777	7.75	7.90	7.45	7.90
.80	.35	Que. Man.	1000	.35	.35	.35	.35
2.45	1.79	Que. Met.	4636	1.92	1.95	1.86	1.95
.77	.35	Que. Smelters	12100	.36	.35	.35	.35
.26	.15	Queenston C.	64002	.20	.25½	.19	.25
19.00	12.00	Quemont §.70	1865	12.50	12.50	12.25	12.25
		R					
1.49	.73	Radiore	15200	.84	.85	.75	.79
1.35	.70	Rainville	500	.77	.75	.75	.75
1.90	1.28	Rayrock	19600	1.40	1.54	1.28	1.54
.03½	.01	Red Cloud	1000	.02	.02	.02	.02
.10	.06	Red Crest	42000	.06	.07	.06	.06½
.07½	.03	Red Hawk	nil	...	B.03½	A.04	.04
		Reeves McD.					
2.15	1.08	§.12½	1400	1.18	1.25	1.08	1.25
2.05	1.25	Renabie	nil	...	B1.30	A1.40	1.40
1.00	.37	Rexspar	18540	.50	.53	.46	.48
.05	.02	Rice Lake	1000	.03½	.03½	.03½	.03½
.23	.10½	Rio-Rup	3000	.11	.11	.11	.11
.75	.50	Rix-A'basca	21300	.60	.64	.60	.63
.35	.16	Roche L.L.	26100	.17½	.19	.16	.17
1.83	.21	Rockwin	193315	1.31	1.33	1.16	1.20
.15	.09	Rowan Cons.	9500	.10	.10½	.10	.10
.17	.11	Ryanor	6000	.11	.13	.11½	.13
		S					
.40	.15	St. Michaels	29200	.19	.22	.15	.20
.68	.45	San Antonio	1500	.53	.55	.52	.55
.70	.13	Sand River	179150	.32	.33	.24½	.26
....	....	Scotia Gold	nil	...	B.00¼	A.01	.01½
.99	.77	Sharbet	61150	.98	.99	.95	.99
1.35	.48	Sheep Creek	17600	.56	.55	.48	.53
8.15	4.85	Sherritt G.	22705	5.10	5.30	4.90	5.30
4.55	4.00	Sigma M. .40	nil	...	B4.00	A4.10	4.10
.20	.08	Silbak Prem.	2250	.08	.09	†.07	.08
1.05	.66	Silver M. *.03	12232	.66	.70	.65	.68
.10	.04	Silver R.	nil	...	B.04	A.05½	.05
.63	.35½	Silver Stand.	4600	.43	.43	.36	.36
1.03	.66	Siscoe §.03½	2940	.80	.78	.75	.78
.17	.07	Skeena	14500	.16	.16	.15	.15
.15	.08½	Slocan Duv.	2500	.09	.09	.08½	.08½
.09	.05½	Soma Duv.	nil	...	B.05½	A.07	.06
.12	.06	South Duf.	nil	...	B.06½	A.07	.06
.42	.27	Stad'n '44 *.02	11472	.35	.36½	.32	.32
.22	.12	Standard G.	1500	†.08	.12	.12	.12
6.40	3.15	Stanleigh	4655	4.05	4.50	4.00	4.05
5.00	2.50	Do. warr.	3460	3.00	3.00	2.50	2.85
5.05	2.82	Stanrock	1565	3.00	3.10	3.00	3.10
.00¾	.00¾	Star Lake	nil	...	B.00¾	A.01	.00¾
.65	.20¼	Star Uran.	31300	.40	.50	.40	.50
.34	.10	Starrat O.	68500	.14	.14	.12	.13
.11	.06	Steeloy	11000	.08	.07½	.07½	.07½
23.12½	17.75	Steep Rock	19214	20.25	20.75	19.50	20.25
.59	.23	Sturgeon R.	16060	.25	.25	.23	.24½
.15	.09½	Sudbury	6300	.10	.10	.10	.10
4.10	2.35	Sullivan *.06	6850	2.55	2.75	2.50	2.65
.45	.30	Sunburst	1820	.33	.30	.30	.30
.26	.14½	Sunshine *.05	14600	.16	.17	.15	.15
.09½	.06	Surf Inlet	31300	.06	.08	.06	.06½
1.75	1.10	Sylvanite	29070	1.52	1.53	1.33	1.40
		T					
.57	.20	Tache Lake	44000	.22	.22	.20	.20
.16	.09	Tandem	26000	.10	.11	.09½	.10
.30	.09	Tarbell	10000	.10	.13	.12	.13
.55	.35	Taurcanis	8600	.51	.51	.45	.49
.19	.10	Taylor B.	400	.11	†.09	†.08	†.08
.66	.10	Tazin	395850	.58	.66	.50	.50
2.69	1.55	T.-Hughes §.05	12315	2.05	2.10	1.86	2.10
4.90	2.55	Temagami	3600	2.65	2.75	2.55	2.60
1.24	.72	Thompson	12950	.80	.84	.78	.78
.36	.09	Tiara	83100	.13½	.13½	.09	.11½
.60	.17	Tib Explor.	4400	.20	.20	.17	.17
.93	.19	Tombill	24000	.74	.73	.66	.68
.47	.32	Torbrit S.	5500	.34	.35	.34	.34
.23	.12	Towagmac	4000	.12½	.12½	.12½	.12½
3.25	1.20	Tr. Can. Ex.	11310	2.15	2.25	1.90	2.25
.34	.22	Trans. Res.	2500	.24	.23½	.23	.23
.33	.15½	Trebor	11000	.17	.17½	.15½	.15½
.55	.28	Tribag	1800	.38½	.38	.35	.35
.33	.20	Trinity	14150	.30	.30	.27	.27
.78	.29	Trojan	379462	.68	.73	.55	.65
		U					
.93	.26	Ultra-Shaw.	92908	.78	.84	.72	.76
.24	.19	Union Min.	5165	.20	.20	.20	.20
7.15	5.50	United Asb.	6715	6.30	6.75	6.05	6.65
.20	.11	Un. Estella	61500	.11½	.11½	.11	.11
		United Keno					
6.40	3.95	§.30+.10	604	4.40	4.40	4.20	4.20
.17	.11	Un'd Mont.	6500	.11	.11½	.11½	.11½
.85	.56	Upper Can.	11000	.58	.68	.59	.68
.04	.01½	Utica	2000	.03	.03	.03	.03
		V, W					
.07	.04	Valley Exp	19000	.07	.07	.05½	.06
.22	.10	Valor	16400	.11	.11	.10	.11
.05	.02¾	Van'da '48	nil	...	B.02¾	A.03½	.03
44.75	32.75	Ventures §.50	9752	40.50	40.37½	39.00	39.75
.29	.14	Vico	121420	.16	.16	.14	.14
1.95	1.30	ViolaMac	6750	1.57	1.65	1.45	1.46
2.35	.47	Virginia	26400	.60	.60	.55	.57
13.75	7.00	Waite Am. §.60	1645	7.30	7.50	7.05	7.50
.54	.32	Weedon Pyr.	16500	.32	.33	.32	.32
.08	.04	Wendell	24000	.04½	.05	.04	.05
.35	.18	Werner Lk.	7200	.20	.20	.18	.18
.50	.35	West Ex.	nil	...	....	A.35	.40
.17	.09½	West Mal.	15000	.10	.11	.09½	.10
.85	.30	West. Min.	3000	.35	.30	.30	.30
.27	.12	Westville	14500	.13	.15	.13	.14½
2.90	1.55	Willroy	7100	1.75	1.67	1.60	1.60
1.84	1.00	Do. warr.	nil	...	B.80	A1.00	1.00
.35	.10	Wiltsey C.	961700	.30	.35	.26	.32
.11	.07½	Winchester	6500	.08	.08½	.08	.08
.43	.20	Windfall	18739	.29½	.31	.26	.30
.05¼	.02	Wpg. R. Tin	5000	.04¼	.03	.03	.03
1.30	.29	Woodgreen	30100	.40	.40	.30	.35
1.60	1.15	Wright-Har.	15977	1.35	1.36	1.35	1.35
		Y, Z					
.37	.18	Yale Ld.	2900	.20	.19	.18	.19
.13	.08	Yellorex	4500	.08½	.09	.08½	.09
1.93	1.23	Yk. Bear *.06	11400	1.30	1.32	1.23	1.30
.10½	.06	Yukeno	10266	.07½	.08	.07½	.07½
.89	.54	Yukon C. *.06	4100	.62	.65	.62	.62
.40	.23	Zenmac	6800	.27	.28	.25	.26
.75	.31	Zulapa	500	.31½	.32	.32	.32

Oil Stocks

Range 1957 High	Low	Company & Dividend ($)	Sales	Last July 19	Week Ending July 26 High	Low	Close or Latest
.23	.17½	Acme	4000	.18	.18	.17½	.17½
.93	.61	Ajax	5325	.80	.80	.80	.80
.10	.04	Albedina	13000	.05	.06	.05	.06
.65	.35½	Alta. P. Con.	112604	.54	.65	.53	.64
.20	.04½	Aldina	nil	...	....	A.10	.09
.35	.18	Altex	2000	.21	.23	.21	.21
.06	.03	Amalta	6100	.04	.06	.05	.05½
.70	.30	Am. Leduc	149260	.34	.42	.32	.39
6.25	4.80	Amurex	400	5.60	5.35	5.25	5.30
4.75	2.80	Anaconda	613	3.05	3.25	2.90	3.05
.28	.12	Anchor	29500	.17	.19	.15	.17
16.87½	13.25	Anglo-Am.	1530	13.50	13.62½	13.25	13.25
.14	.06	Apex	14500	.06	.06½	.06	.06
		B					
20.75	15.37½	Bailey-Sel. A	7418	17.25	17.37½	16.50	16.87½
41.00	30.62½	Do. 5% pf.	1310	34.75	34.87½	33.25	33.25
28.25	27.00	Do. 5¾% pf.	2150	...	28.25	27.00	27.50
3.80	2.40	Banff	75895	3.05	3.80	3.00	3.45
.15	.05	Barons	18500	.06½	.06½	.06	.06
.54	.36	Basco	10800	.39	.45	.40	.40
.15½	.10	Bashaw	2000	.15	.14	.14	.14
.12½	.08½	Bata	8900	.10½	.11	.10	.10
.30	.14	Blue Crown	6600	.20	.21	.17	.20
.48	.24	Bonnyville	12700	.32	.32	.30	.32
1.10	.70	Bralsaman	1500	1.01	.97	.97	.97
3.60	2.60	Britalta	12513	2.85	2.94	2.60	2.85
		C					
3.20	.80	Cabanga	19220	1.25	1.30	1.15	1.20
1.55	1.21	Calalta	18870	1.28	1.34	1.27	1.33
36.75	24.00	Calg. & Ed.	3970	35.12½	35.50	34.00	34.62½
5.50	4.50	Calvan	nil	...	B4.95	A5.20	5.10
		Canada					
4.50	3.20	Canada Oil L.	7990	3.40	3.40	3.30	3.40
2.80	1.75	Do. warr.	4300	2.20	2.25	2.10	2.25
		Canadian					
.60	.40	Canadian Ad.	19593	.58	.58	.54	.57
10.12½	5.90	Cdn. Atlantic	18623	9.45	9.45	9.10	9.30
.78	.53	Cdn. Br. E.	36060	.70	.73	.68	.70
3.00	1.30	Cdn. Chieft'n	24680	2.15	2.45	2.18	2.40
		Cdn. Dec.					
1.70	.80	warr.	2700	1.04	1.10	1.05	1.10
9.40	6.50	Cdn. Dev.	35800	8.40	8.50	8.25	8.25
.08	.04	Cdn. Emjay	12666	.05	.05¾	.04½	.05¾
9.25	5.10	Cdn. Ex. G.	5832	8.40	8.75	8.30	8.30
.27	.10	Cdn. F'tune	9000	.12	.12	.10	.10
1.35	.92	Cdn. High Cr.	10175	.95	.94	.92	.92
3.10	1.75	Cdn. H'stead	37915	2.65	3.10	2.65	3.05
23.00	12.25	Cdn. Husky	14508	21.62½	23.00	21.87½	22.75
16.25	7.50	Do. warr.	12015	14.50	15.75	14.50	14.50
5.00	3.65	Cdn. Prosp.	9340	3.85	3.90	3.75	3.80
3.25	2.30	Cdn. Wil'ston	nil	...	B2.25	A2.55	3.00
.85	.40	Canadusa	1000	.55	.40	.40	.40
2.61	1.30	Canso Gas	24695	2.21	2.25	2.03	2.05
8.30	5.00	Canso Pet.	35757	8.25	8.30	7.60	7.85
3.30	1.84	Canso Prod.	28714	2.21	2.30	2.00	2.15
5.00	.75	Canso Warr.	4000	4.65	4.50	3.70	4.00
.70	.55	Carleton	nil	...	....	A.80	.63
.25	.13	Castle O.	7250	.16	.17	.15	.16
14.25	8.40	Cent. Del Rio	131759	13.87½	14.12½	12.50	13.12½
5.00	3.35	Cent. Explor.	1700	3.45	3.50	3.40	3.50
.29	.14	Century	149350	.20	.29	.19	.24
4.30	2.27	Charter	3500	3.70	3.75	3.60	3.60
.21	.14	Claybar	nil	...	B.14½	A.15	.14½
†.70	†.70	Coastal	nil	...	B.70	....	†.70
1.05	.90	Command *.08	nil	...	....	A1.00	†.75
3.25	2.00	Commoil §.10	nil	...	B2.00	A2.25	2.00
4.35	3.50	Common P. *.15	nil	...	B3.30	A3.65	3.50
.16	.10	Con. Allen.	9500	.13	.13	.12	.20
.26	.18	C. Cord.	500	.20	.20	.20	.20
.90	.41	C. Dragon	21400	.43	.50	.41	.49
.64	.36	C. East. C.	3000	.50	.49	.47	.47
.20	.04	Con. Gr. C.	30166	.06	.07	.05	.07
5.30	4.30	C. Mic Mac	8849	5.05	5.10	4.80	4.95
.17	.09	C. Peak	6166	.10	.11	.10	.10½
13.00	8.60	Con. W. Pet.	525	9.40	9.50	9.25	9.25
6.25	4.25	Cree Oil	11760	5.70	6.10	5.70	6.00
3.60	1.90	Do. warr.	63802	3.15	3.60	3.20	3.60
		D, E, F					
.50	.20	Dalhousie	10050	.40	.36	.28	.36
2.83	1.42	Dev. Palmer.	27110	2.24	2.30	2.18	2.22
13.75	9.25	Dome	9995	12.50	13.37½	12.50	13.12½
.15	.09	Dom. Min'ls.	20800	.09½	.10½	.09	.09
.10	.03½	Dubar	6500	.04	.04	.03½	.04
.36	.15	East Cdn.	2300	.20	.19	†.14	.15
.18	.07	Edoran	5500	.08	.10	.08	.08
.24½	.10	Emp. Oil	7200	.12	.12	.10	.12
9.55	2.93	Fargo	12830	9.35	9.25	7.75	8.45
9.50	2.65	Ft. St. John	1900	7.90	7.75	7.30	7.30
.06¾	.02¼	Freehold	500	.03½	.03¾	.03¾	.03¾
1.40	.38	Futurity	34550	1.30	1.33	1.08	1.10
		G, H					
.30	.11	Gaspe	13000	.13	.13	.12	.13
.11	.05	Gateway	4700	.06	.05½	.05	.05½
6.25	5.00	Gen. Pet. .20	1200	5.60	5.75	5.60	5.70
6.00	4.80	Do. A .20	9140	5.20	5.25	5.10	5.10
.38	.18	Golden Sat.	2600	.30	.31	.30	.30
.12	.05	Golden Sp.	10000	.07	.07½	.07	.07
48.00	36.25	Gt. Plains	1540	38.25	38.00	36.25	36.25
12.12½	9.60	Gridoil	nil	...	B9.50	A9.80	10.25
.09	.03	Hargal	23019	.08½	.08½	.07½	.08½
.16	.08½	Henderson	nil	...	B.12	A.13	.12
.47	.26	High.-Sarcee.	30770	.43	.43	.38	.40
		Hi-Tower					
11.50	8.37½	§.30+.30	1150	10.62½	10.50	10.37½	10.50
23.75	11.25	Home A .25	6974	21.87½	21.50	20.37½	20.75
23.25	10.50	Do. B	8178	21.00	21.25	20.00	20.12½
2.20	1.55	Humber	7500	1.72	1.78	1.57	1.65
		I, J, K, L					
.75	.32	Israel Cont.	nil	...	B.35	A.45	.50
.67	.26	Jump. Pound	79600	.64	.67	.56	.58
3.90	1.88	Jupiter	29850	3.70	3.70	3.25	3.35
.20	.09	Kenare	5000	.10	.11	.10	.11
.25½	.14	Keno	18500	.18½	.21	.18	.18
.09½	.06	Leamac	15300	.07	.07½	.06½	.06¾
.18	.12	Leduc Cal.	6600	.16	.15½	.14½	.15
2.85	2.20	Liberal	19650	2.38	2.38	2.30	2.37
1.05	.40	Lloydminster	nil	...	B.55	A.75	.50½
.23	.11	Long Is. P.	173100	.22	.23	.19	.19
		M, N					
.36½	.20	Marigold	6700	.25½	.26	.21	.22
.04	.01½	Marvel	nil	...	B.03	A.03½	†.01
5.35	3.15	Medallion	28992	4.90	4.90	4.55	4.60
.95	.47	Merland	15250	.67	.69	.60	.65
18.50	13.00	Merrill Pet.	114007	14.25	17.12½	14.25	16.75
1.73	.66	Midcon	154240	1.34	1.34	1.15	1.16
.40	.25	Mill City	36628	.35	.38	.25	.30
1.55	.82	Mill Creek	3700	.50	.90	†.80	.85
1.82	1.25	Mollusca	300	1.46	1.50	1.45	1.50
.22½	.08	Monarch	80400	.15	.22½	.14	.20
5.05	3.35	Nat. Pet.	3500	3.70	3.80	3.60	3.80
1.00	.50	N. Bristol	10100	.55	.56	.54	.55
3.15	1.78	N. British	28218	2.65	2.72	2.25	2.72
2.60	1.85	N. Chamb'n	15291	2.25	2.28	2.03	2.08
.40	.22½	N. Concord	2400	.31	.31	.30	.31
.70	.47	N. Cont.	20700	.50	.53	.48	.53
.30	.19	N. Davies	2500	.25	.25	.24	.24
2.70	1.35	N. Gas Expl.	48986	2.67	2.70	2.45	2.46
.08¾	.05¼	N. Ranch.	13500	.05½	.05⅞	.05¼	.05¼
.16	.08¼	N. Richfield.	17287	.09⅜	.10	.09	.09½
.18	.08	N. Spring.	38325	.10	.18	.11	.18
2.65	1.85	N. Superior	2933	2.40	2.40	2.22	2.29
.85	.40	Northcal	7075	.58	.55	.50	.50
6.10	4.80	North Can.	9780	5.50	5.80	5.25	5.70
39.00	36.00	Do. 5½% pf.	40	36.00	36.00	†35.50	†35.50
3.50	2.45	Do. warr.	220	2.95	2.85	2.70	2.85
.04	.02	N. Cont.	9000	.02½	.02¾	.02¾	.02½
.84	.48	Northland	nil	...	B.51	A.60	.58
.54	.26¾	Nuco	21201	.35	.36	.30	.30
		O, P					
.20	.08	Oil Select.	68500	.10	.10	.08½	.08½
2.90	2.30	Okalta	10720	2.55	2.60	2.40	2.50
37.00	16.12½	Pac. Pete.	41282	34.25	35.50	32.50	34.62½
....	....	Pan Israel	nil	...	....	....	2.65
.75	.21	Pan West.	30500	.55	.58	.50	.55
6.00	4.60	Parker Dr. §.25	125	4.60	4.60	†4.50	4.60
17.00	9.00	Peace River	7388	14.50	14.30	13.00	14.37½
2.90	1.00	Peace R. Pet.	384979	1.45	2.10	1.10	1.90
3.90	2.30	Permo pf.	29368	3.50	3.50	3.30	3.30
2.25	1.20	Peruvian	20200	1.58	1.58	1.38	1.47
1.50	.80	Petrol	49200	.85	.88	.80	.84
1.85	1.40	Phillips	33100	1.63	1.70	1.60	1.67
.77	.55	Ponder	2000	.58	.57	.57	.57
5.90	3.90	Prairie	800	4.00	4.15	3.90	4.15
4.00	1.70	Provo	85960	3.90	3.95	3.75	3.90
		Q, R					
.20	.06	Que. Oil Dev.	12500	.09	.09	.09	.09
.51½	.25	Quinalta	97900	.46½	.51½	.47	.51
.06	.02½	Realty	36000	.03	.03½	.02½	.03
.23	.11	Reef Explor.	34100	.15	.16	.13½	.15
.07½	.04	Renfrew	1000	.04	.04	.04	.04
2.50	1.26	Richwell	2912	1.75	1.88	1.70	1.71
.11	.03¼	Ridgeway	31500	.04	.04	.03½	.04
1.00	.45	Rocky Pet.	56010	.48	.59	.48	.48
.25	.09	Roxana	64825	.21	.25	.20	.22
1.00	.60	Royal Can. V.	2475	.70	.80	.67	.68
23.25	16.00	Royalite	4850	20.37½	20.87½	19.50	19.50
		Do. 5¼% pf.					
38.25	27.00	1.31¼	205	34.00	35.50	34.00	34.00
		S					
1.05	.08½	Sage	15200	1.00	1.00	.95	1.00
1.82	1.27	Sapphire	2800	1.45	1.44	1.38	1.38
80.00	58.00	Do. 5% debs.	40	60.00	60.00	60.00	60.00
.70	.07	Sastex	2000	.09	.10	.07	.10
3.95	2.50	Scurry-Rain.	21450	3.55	3.55	3.00	3.40
8.10	3.60	Security	74545	7.10	8.10	7.00	8.05
.25	.10	Select Oils	9900	.11	.11	.10	.11
.16	.06	Share Oils	7600	.11	.11	.09¼	.09¼
.19	.09½	Silver City	5500	.13	.12½	.11	.12½
.30	.16	Souris Val.	1500	.25	.23	.20	.20
.70	.50	So. West Pete.	nil	...	B.70	....	.60
.60	.28	So. Union	1773	.30	.30	.28	.28
.30	.17	Sparmac	10200	.28	.29	.25	.25
.78	.21	Spooner	144100	.50	.49	.37	.38
1.75	.60	Stanwell	255080	1.53	1.75	1.50	1.69
.15	.09	Sturgeon	1500	.09	.09	.09	.09
		T, U, V					
.98	.50	Texas Cal.	21500	.76	.76	.69	.69
8.25	2.50	Titan	nil	...	....	A6.50	5.25
3.35	2.00	Trans Emp.	48170	2.89	3.15	2.70	3.00
.70	.18	Do. rts.	24738	.29	.32¾	.28	.28
.07	.03½	Transfield	2500	.05½	.06	.06	.06
9.00	6.95	Triad	21310	7.90	7.95	7.50	7.50
.13½	.06½	Tri-Zone	nil	...	B.08	A.09	.07½
.40	.31	Turner V.	1000	.35	.37	.37	.37
4.40	1.73	United Oils	153735	3.75	3.80	3.50	3.70
.38	.24	Vanalta	2400	.30	.30	.28	.30
.23	.10	Vandoo	20300	.13½	.14	.11	.11
2.79	1.30	Van Tor	36950	2.43	2.43	2.40	2.41
.83	.50	Vulcan	2826	.75	.77	.68	.68
		W, Y					
.81	.20	Wayne	4850	.20	.21	.18	.18
.53	.16½	Wespac	52661	.31½	.32	.25	.25
1.08	.91	W'burne	46220	1.03	1.05	1.00	1.04
3.00	1.85	W. Decalta	15658	2.54	2.56	2.47	2.55
1.35	.46	Do. B warr.	8000	.85	.90	.81	.85
		W. L'hoids					
6.50	5.00	§.12½	200	5.50	5.60	5.50	5.50
2.50	1.12	W. Maygill	23865	2.33	2.44	2.30	2.38
3.90	1.00	W. Naco	20300	2.07	2.38	2.12	2.21
.12	.07	W. Warner	500	.08½	.08	.08	.08
.16	.07	Y'ke Can.	21000	.10	.10	.08	.08
.09	.05½	York Oils	13000	†.05¼	.07	.05½	.05½

■1 sh. Chib. Asb. for 10 shs. Que. Chib. •U. S. funds. ••Initial. †Less than board lot. ♦When sales shown nil the figures are bid, asked and latest sale. *Paid in 1956. §Payable in 1957 to date. ■■1 sh. El Sol for ea. 10 shs. held. ‡Extra paid in 1956.

Unlisted Stocks

(Compiled by Intercity Securities Corporation Limited, Toronto)

July 29, 1957.

	Bid	Asked
Alberta Gas Trunk Line	18.25	19.25
Algo. C. & H.B. Rly. com.	32.50	33.50
Do. Pfd.	1.00	....
Allens Toronto Units	43.00	....
Anglo Can. Telephone A	34.50	35.50
Bowes Ltd. 1% pfd.	.70	.80
Brinton Peterboro Carpet	46.00	50.00
British America Assce.	109.00	115.00
B.C. Sugar	30.00	32.00
B. C. Telephone, 4½% Pfd.	85.00	....
British Mortgage & Trust	223.00	229.00
Brit. Nfld. Corp. (Brinco)	6.00	6.50
Calgary Power 4½% Pfd.	87.00	....
Can. Admiral Corp.	....	30.00
Can. Canners, B	8.00	....
Can. Cons Grain Units	110.00	....
Can. Corp Management	5.50	6.25
Can. Crush'd Stone 6% Pfd.	94.00	....
Can. Delhi Pete	11.75	12.25
Can. Foreign Securities	13.00	....
Can. Insurance Shares	72.00	85.00
Cawthra Apts.	42.00	....
Chase, Dr. A. W. Common	1.60	2.25
Colonial Steamships Com.	240.00	....
Commercial Finance	51.00	....
Concourse Bldg., units	75.00	....
Do V.T.	56.00	....
Crown Life Insurance	123.00	129.00
Debenture & Sec., 5% Pfd.	80.00	90.00
Detroit Internat. Bridge	16.00	18.00
Dom. Can. Gen. Insce.	42.00	53.00
Dom. Linseed Oil, units	2.75	....
Dom. Manufacturers Com.	5.00	....
Do. 7% Pfd.	80.00	....
Dover Industries	9.25	10.00
Eastern Can. Savings	17.00	19.00
Eastern Trust Co.	26.00	28.00
Essex Packers Common	1.50	2.25
Do. pfd.	33.00	37.00
Goderich Elevator	23.00	24.00
Granite Club	14.25	14.75
Grt. Brit. & Can. Inv. Com.	15.00	....
Do pfd	105.00	115.00
Great West Life	275.00	285.00
Guar. No. Amer. Fully Paid	365.00	385.00
Do 20% Paid	85.00	....
Halifax Insurance	11.50	♦13.50
Highland Dairy Pfd.	40.00	....
Homewood Sanitarium	88.00	92.00
Hudson's Bay Co.	34.75	35.50
Humber Amusement Pier	.30	.50
Humberstone Shoe	8.00	9.00
Industrial Mtge. & Trust	77.00	....
Ingersoll Mach. 4% Pfd.	87.00	....
Ingersoll Mach. & Tool, B	5.25	6.00
Ingram & Bell Com.	4.75	5.50
Jenkins Bros.	69.00	75.00
Lakeland Natl. Gas Units ($100 Deb. & 10 com.)	121.00	125.00
Do shares	6.50	7.25
Lambton Golf Club	370.00	400.00
Lambton Loan Sarnia	80.00	85.00
Lawson & Jones 1% Pfd.	.75	....
Lond. Can. Inv. $3.00 Pfd.	45.00	48.00
Do., A	41.00	....
London Life Insurance	130.00	145.00
Lord Simcoe Hotel A	4.25	5.00
Manufacturers Life	225.00	235.00
Maritime Life	116.00	....
Monarch Life 60% Paid	305.00	....
Morrow Screw & Nut Com.	35.00	41.00
National Life 30% Paid	320.00	350.00
Nat. Sewerpipe Units	13.00	16.00
Niagara Low. Arch Bridge	55.00	63.00
Nor. Ont. Nat. Gas shares	18.00	18.75
Do units ($20 Deb. & 1 com.)	32.00	34.00
Nor. Telephone 5½% Pfd.	19.50	20.50
Oakville Wood 6% Pfd.	81.00	87.00
Paramount Oshawa Theatres	12.50	....
Park Lawn Cemetery	2.00	2.75
Pembroke Electric Light	30.00	....
Phillips Electrical	13.25	14.50
Prairie Royalty Trust Units	2.25	....
Prudential Trust	17.00	....
Quebec Nat. Gas Ex Units (with 2 com. shs.)	124.00	128.00
Que. Nat. Gas Shares	28.25	29.25
Rapid Grip Batten Pfd.	90.00	95.00
Reliance Pete A and B	25.00	....
Do., pfd.	37.00	41.00
Rio Tinto Warrants	2.35	2.50
Robin Jones Whitman Pfd.	24.00	....
Royal Oak Dairy B	4.00	....
Sincennes McNaughton Line	3.00	....
Skyway Drive-In Theatres	1.85	....
Sovereign Life 25% Paid	107.00	....
Standard Fuel Common	2.75	....
Do. Pfd. $2.25 div.	36.00	38.00
Sun Life Assur.	223.00	233.00
Supercrete Ltd.	5.25	5.75
Teleflex Ltd.	10.00	12.50
Thorncliffe Park	6.00	6.75
Tor. & Lon. Investments	2.75	3.25
Toronto Med. Arts Bldg.	57.00	....
Trans-Canada Pipe Shares	37.00	38.00
Do Ex Units (with 2 com. shs.)	143.000	147.00
Triarch Corporation	100.00	100.50
United Can. Shares	10.00	11.00
Waterloo Mfg.	6.00	8.00
Waterloo Trust	31.00	32.00
Westcoast Trans. Units (with 3 v.t. com. shs.)	197.00	203.00
Do V.T.C.	41.75	42.75
Western Assurance	71.00	75.00
Western Life 25% Paid	62.00	70.00
Wood Alexander 6% Pfd.	87.00	92.00
By Kippen & Company Inc.		
Algoma C.&H.B. Rly. com.	32.00	34.00
Beauharnois Lt. H. & Pr.	30.00	....
Calgary Power	....	....
Cons Theatres A	6.50	....
Do B	3.00	5.00
Cuban Can. Sugar	7.00	....
Dupuis Freres pfd.	17.50	19.50
Guar. Co. of N. America	....	4.00
Hart Battery com.	8.00	10.00
Hudson's Bay Co. (new)	34.50	35.50
London Canadian A	40.00	43.00
Maritime Tel. & Tel.	15.50	16.50
Mtl. C. & Dist. Svgs. Bk.	....	48.00
New Brunswick Tel.	11.50	12.50
N.S. Light & Power	12.50	13.50
Ont. & Que. R. 5% C. stk.	108.00	114.00
Prov. Bk. of Can.	24.25	25.25
Prud. Trust Co.	17.00	....
Sherbrooke Trust Co.	175.00	....
Strategic Materials	19.00	21.00
Sun Life Assur. Co.	215.00	225.00

Dividends Declared

(Continued)

	This payment $	Date payable	Date of record §
Sidney Roof A	.22½	Aug. 1	Jul. 15
Silverwood Dair. B	.15	Oct. 1	Aug 30
Do A	.15	Oct. 1	Aug 30
Simpsons Ltd.	.12½	Sep. 16	Aug. 15
N. Slater	.25	Aug. 1	Jul. 11
Southam Co.	.50	Sep. 28	Sep. 13
So. Can. Pwr.	.62½	Aug. 15	Jul. 19
Stand. Brands	†.50	Sep. 15	Aug. 15
Stand. Fuel pf.	.56¼	Aug. 1	Jul. 15
Stand. Pav.	.37½	Oct. 1	Sep. 13
Stan. Brock A	.15	Aug. 1	Jul. 10
Do. B	.10	Aug. 1	Jul. 10
Steel Co. of Can.	.40	Aug. 1	Jul. 5
Steinberg's Ltd. pf.	1.32	Aug. 15	Jul. 31
D. A. Stuart Oil	.25+‡.25	Sep. 2	Aug. 9
Super-Serv. Sta. pf.	.11¼	Sep. 16	Aug 20
Tay. Pear & Ca. pf.	.12½	Aug. 15	Jul. 31
Texas Co.	†.50	Sep. 10	Aug. 9
Tor. Dom. Bk.	.32½	Aug. 1	Jun. 28
Union Gas	.40	Aug. 1	Jul. 5
Un. Corp A	.38	Aug 15	Jul. 15
Do B	.10	Aug 31	Jul. 31
Un. Fuel Inv. A pf.	.75	Oct. 1	Sep. 6
Ventures Ltd.	.25	Aug. 21	Jul. 31
Viceroy Mfg. A	.12½	Sep. 15	Sep. 1
Virginia Dare pf.	.31¼	Sep. 1	Aug. 12
Waite Amulet	.25	Sep 10	Aug. 9
Waterloo Tr. & Sav.	.32½	Oct. 1	Sep. 30
Westeel Prod.	.30	Sep 14	Aug. 21
West Can. Brew.	.30	Sep. 3	Jul. 31
G. H. Wood pfd.	1.37½	Sep. 1	Aug 15
Zellers Ltd	.30	Aug. 1	Jul. 2
Do. 4½% pf.	.56¼	Aug. 1	Jul. 2

† U. S. funds. ‡Extra.

*The ex-dividend date is usually at least two full business days prior to the record date.

§—One com. sh. for ea. sh. held.

♦—2 shs. (non-assess. red. pf. 20c par) for ea. com. sh. held redeem. immed.

•—First foll. 3-for-1 stk. split, May 4, '57.

•—Initial.

Company Meetings

Date	Company	Place
Aug. 2	Lawson & Jones Ltd.	London
Aug. 5	Can. Steamship	Montreal
Aug. 6	New Jack Lake M.	Toronto
Aug. 6	Pac. (East.) G.M.	Toronto
Aug. 6	Rexspar Uran.	Toronto
Aug. 7	Lyndhurst Min.	Montreal
Aug. 7	Yukon Cons. Gold	Toronto
Aug. 9	Abaska Lake M.	Val D'Or, P.Q.
Aug. 13	Stand. Fuel Co.	Toronto
Aug. 14	Bateman Bay M.	Montreal
Aug. 14	Louvicourt Goldf.	Montreal
Aug. 15	Medallion Pet. Ltd.	Calgary
Aug. 15	Trans Empire Oils	Calgary
Aug. 20	Br. Col. Elec.	Vancouver
Aug. 21	So. Amer. Gold	New York, N.Y.
Aug. 23	Anacon Lead	Toronto
Sep. 10	Sheraton Corp.	Boston, Mass.

Bond Redemptions

Bond Issues	Rate	Year	Date	Cal. pr.
*Wabush Lake Rlwy.	4½%	'76	Jul. 30	$105.00

*—All outstanding.

Bond Tenders

12 Noon, Aug. 1, 1957, Govt. of Can. Treas. Bills: Payable No. 1st, 1957, $125,000,000. Dated Aug. 2nd, 1957.

Advances and Declines

Week Ended	Toronto Ups	Downs	No Change	Montreal Ups	Downs	No Change
June 21	255	348	158	84	218	116
June 28	255	396	202	103	154	126
July 5	294	327	184	118	124	116
July 12	274	452	174	—104	167	131
July 19	283	383	177	—111	151	133
July 26	207	473	150	—76	179	135

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Mines Handbook Outlines New Metals Growth

Expansion plans of Canadian mining companies point to further growth to new high levels of production, the 1957 Canadian Mines Handbook says.

Published by the **Northern Miner Press**, the 324-page handbook points out that annual uranium output value of $400 million, expected to be reached within the next few years, would represent one-quarter of total Canadian mine production yearly.

"Notable advances are also being made in nickel and iron ore, and despite recently reduced prices, major developments have been planned in the base metals field," the handbook states.

Some 8,200 companies are listed in this year's edition, including more than 135 established producers, hundreds of exploration and development companies. This year, 370 new names make their appearance.

As in other editions, properties, officers and directors, history, mine development, earnings and finances are given for each major company.

Canadian Mines Handbook costs $3 for the paper bound edition and $5 for the de luxe edition.

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Taking Stock

What's going on in the mining and oil markets — the facts and rumors.

By RAY MAGLADRY

Trading is fairly brisk in stocks of some companies taking part in Lake Erie offshore gas exploration. New and bigger programs this season have sparked this market.

Dampening factor is an apparent shortage of platforms from which drilling must be done. But more companies are entering this race, acquiring large acreages under license.

Focal point of speculative interest this year has been **Midcon Oil & Gas** which has had some broad price swings—latest downward movement set off by collapse of a drilling platform (not owned by the company).

Here's how some stocks involved in the Lake Erie play have been moving:

	Latest Price $	Week Ago $	1957 High	1957 Low
Cdn. Export Gas	9.20	8.40	9.25	5.10
Cdn. Prospect	3.85	3.85	5.00	3.65
Cons. West Pete.	9.10	9.40	13.00	8.60
Midcon	1.22	1.34	1.73	.66
Spooner	.39	.50	.78	.21

* * * *

THE BUZZ IN BOARD ROOMS—is about the round of depressing street rumors on mining and production problems of Blind River uranium mines—in sharp contrast to optimistic forecasts earlier this year. Latest company to attract this attention is **Northspan Uranium Mines** which sells down recently to $5.95 from $7, settles around $6.

A few scattered uraniums show mild strength briefly in generally quiet markets. **Cayzor** edges up to $5.35 from $5.15 and **Stanrock** firms slightly to $3.10 from $3, then eases back to $2.82.

Successfully bucking a broad easier trend in mining issues are iron ore producers. **Hollinger** moves quietly higher to $33 from $32½, later retracing the path and **Labrador** is mildly stronger at $22¾ compared with $22½.

* * *

Senior mines, which have held relatively firm in soft markets, join the declining trend, with some individual losses fairly steep. **International Nickel's** performance, declining from around $100 in early July to a new 1957 low at $92⅛, is a leading boardroom topic. Latest weakness develops as Inco cuts domestic nickel price due to Canadian dollar premium.

Other big metal producers also weaker with **Falconbridge** slipping from $34 to $33¼ and **Noranda** easing down from $49½ to $48. Noranda's earnings in the second quarter, equal to 73c a share, compares with $1.08 a share in the same period of 1956. This illustrates the squeeze on profits that mines are experiencing.

Some buying interest develops in **Dominion Magnesium**, producer of a wide range of rare metals, as this company's operations appear to be unaffected by lower prices for the more established metals. Dominion Magnesium stock climbs from $13⅛ to $13¾.

* * *

Quebec Lithium is mildly higher at $7.90 compared with $7.75 earlier as company reports operating profit of $644,633 in the first half this year, more than triple that of same period last year. Stock later dips to $7.50 as market generally softens.

Also showing improvement in production, **Upper Canada Mines** is slightly stronger at 68c compared with 58c recently. Output was up to $420,632 in second quarter from $381,645 in first quarter due to increase in grade of ore treated. Company also reports good results from drilling on its Kirkland Lake gold property.

Campbell Red Lake Mines, trading at $5.05, its low for this year, moves to $5.20 as it reports higher earnings for the first half. Net profit was $701,282, equal to 17c a share, compared with $674,522 in the same period last year.

Buying appears in **Campbell Chibougamau** as an agreement is completed for acquisition of all assets of **Yorcan Exploration** on the basis of one Campbell share for each four shares of Yorcan. Campbell strengthens to $9.80 from $8.

* * *

ON THE OIL AND GAS FRONT—Leading issues soften to pace the western oil and gas board to lower levels, first major general decline for the group in several sessions.

Merrill Petroleums, rumored for some time to be looking for a merger deal, has accepted an offer to merge with **Pacific Petroleums**. The offer, subject to approval by Merrill shareholders, provides for the merger on the basis of one share of Pacific for two shares of Merrill. Pacific stock at $32½ compares with $34¼ recently and Merrill is higher at $15⅝ compared with $14¼.

Interest still simmers in **Home Oil's** Virginia Hills-Swan Hills areas of Alberta. Production tests have been carried out on the Virginia Hills No. 9-20, drilled earlier this year, showing restricted flow potential of 1,200 b/d. First follow-up drilling to Swan Hills 7-11 discovery well is planned to start shortly.

Home Oil A eases from around $22 to $19¼ and Home Oil B issue slips from $21 to $19¼. **United Oils**, which controls Home, also weaker at $3.55 compared to $3.75 recently.

MINING INVESTMENTS

Lake Cinch Expanding Seeks Bigger Contract

Lake Cinch Mines is shooting for a delivery rate of 150 tons daily by Oct. 1 to the **Lorado Uranium Mines** custom mill in the Beaverlodge area, company officials report.

Meanwhile, the company is launching underground expansion program as it negotiates for an additional contract.

Expansion involves deepening the present shaft to 825 ft.

This would provide for two additional levels at 650 and 800 ft. Present contract covers shipment of uranium ore containing 1.5 million lbs. uranium oxide having a gross value of $15,750,000.

Shipments to the custom mill have been maintained at 75 tons a day since mid-May, the ore coming from the mine's stockpile which will also supply shipping ore during shaft sinking operations, officials say.

Grade of the 3,600 tons of ore delivered to the mill by mid-July was 0.2536% uranium oxide per ton.

The ore contained 18,259 lbs. of uranium oxide with a gross value of $191,719, the company reports.

Officials estimate that a grade of 0.17% would cover costs of production before write-offs. It is estimated that shipments will be up to a grade of 0.3% shortly.

Preparations for mining are going ahead on the upper two levels. The mine is expected to be ready for underground mining operations shortly after the shaft deepening program is finished, around Sept. 1.

Dalhart Plans Crush Beryl

Dalhart Minerals announces that it plans to draw ore from several dykes for crushing in new equipment that has been installed at the Greer Lake, Man., beryllium property.

Ore can now be drawn from seven developed dykes carrying beryl crystals, mica, feldspar and other metals, according to Dean Carlson, superintendent of operations. Four more dykes are under development and 35 have been mapped in prospecting work.

Specially-trained personnel will be required to mine the highly crystalized ore which fractures easily, officials say.

It is broken by open pit methods, crushed and then must be hand-picked for beryl, mica and feldspar, officials say.

Quebec Lithium Profits Triple

Quebec Lithium Corp. reports operating profit of $644,633 from milling 120,286 tons of ore in the first six months of this year.

This compares with operating profit of $202,931 for the same period last year when 83,062 tons were concentrated. The company is exempt from federal taxes for another two years from August 1, 1957, officials point out.

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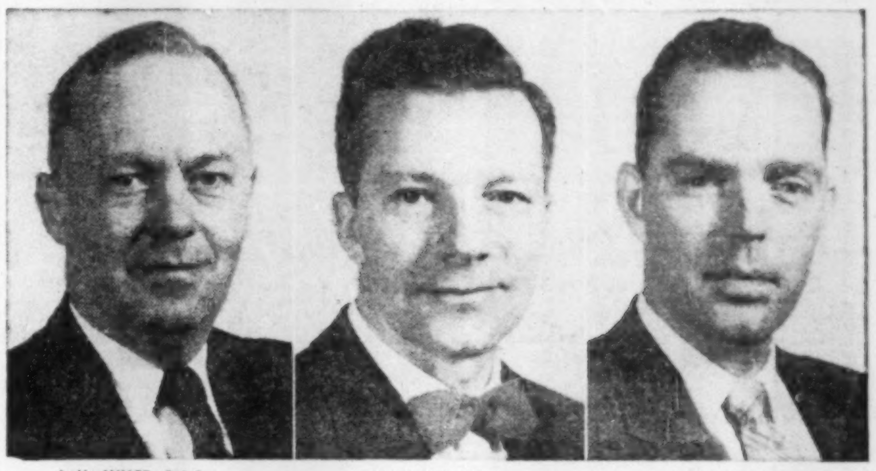
ANNOUNCEMENT

APPOINTMENTS BY INTERNATIONAL EQUIPMENT COMPANY LTD. AT NAPANEE IRON WORKS DIVISION



J. H. MILLER, B.A.Sc. — W. NAVES, B.Eng. — A. JONES, B.Comm.

Mr. Allan N. Campbell, president of International Equipment Company Ltd., is pleased to announce three important appointments to Napanee Iron Works following the recent acquisition of these additional manufacturing facilities at Napanee, Ont.

J. H. Miller, B.A.Sc., appointed General Manager, Napanee Iron Works, has had extensive engineering experience. On graduation from the University of Toronto he joined the Ontario Northland Railway and was later connected with the Toronto Transportation Commission and the Quebec North Shore and Labrador Railway, where he was Chief Mechanical Officer.

W. Naves, B.Eng., appointed Engineer, Napanee Iron Works, is a graduate of McGill University. He formerly held the position of Special Engineer with the headquarters staff of Canadian National Railways and was engaged in electrical engineering and engineering-economic studies, thus bringing valuable experience to his new appointment.

A. Jones, B. Comm., appointed Comptroller, Napanee Iron Works, is a graduate of Queen's University. Mr. Jones joined Canadian Cottons Limited at Cornwall, Ont., where he rose to the position of Assistant Comptroller.

International Equipment Company, one of Canada's foremost Railway and Industrial Supply Manufacturing companies, operates plants in Montreal and Napanee, Ont., and maintains sales and service offices and warehouses in Montreal, Toronto, London, Winnipeg, Regina, Calgary, Edmonton and Vancouver.

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Recommended Home, Feb. 11th at $12.00 .... Apr. 30th price $20.66
Recommended Provo, Mar. 29th at $2.72 .... Apr. 30th price $ 3.60
Recommended Stanwell, April 12th at $ .90 .... Apr. 30th price $ 1.38
Recommended Trans-Canada, May 17th at $30.00 ..... May 30th price $43.00

All recommendations were on the nose—no others were made.
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Premium Iron Planning New Issue

Premium Iron Ores, which holds substantial interests in the Ungava iron ore area of New Quebec, is understood to be planning public financing shortly through a common share offering.

The offering is expected to consist of 460,000 shares at $7.85 a share, of which 250,000 would be treasury shares and 210,000 would be sold by present shareholders.

Premium Iron Ores was organized by Cleveland industrialist Cyrus Eaton to aid in development of **Steep Rock Iron Mines** for which Premium still acts as sales agent.

After the proposed new financing, Premium Iron would have 2,350,000 shares outstanding, and authorized capital of five million shares.

The company holds 600,000 shares of Steep Rock, equal to 7.45% interest, 2,700 shares of **McInytre Porcupine Mines** and 5,510 shares of **Portsmouth Steel Corp.**, an investment company.

Its interest in Ungava is through ownership of 60.8% of the outstanding shares of **International Iron Ores** which wholly owns **Atlantic Iron Ores**. These two companies have been developing properties in the Labrador Trough where large tonnages of low grade magnetite have been indicated by drilling.

Premium Iron is reported to have had a net profit of about $133,000 last year compared with a net profit of about $192,000 in 1955.

Revenue is chiefly in the form of commission income from the company's operation as agent for Steep Rock.

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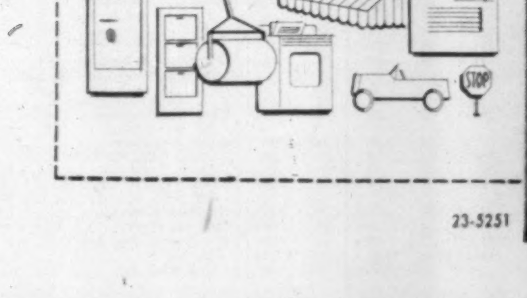

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Half-Way Mark

Here's Mining Profit Picture

The effect of "precipitous" drops in prices for metals this year on earnings of Canadian mining companies are emphasized sharply in semi-annual statements of the **Mining Corp. of Canada** group of companies.

N. C. Urquhart, president of Mining Corp., notes that earnings of the subsidiaries have been "seriously affected by the precipitous decreases in prices for metals since the first of the year, the continued high rate of exchange of U.S. funds currently at approximately 5¼% and higher operating costs."

Copper, the reports note, was 34.53c a lb. at the beginning of 1957; current price is 27.875c. Zinc was 12.95c lb. now at 9.475c. Gold was $34.53, now $33.57.

Here are the results of the subsidiaries:

Quemont Mining Corp., net profit plunged 70% to 36c a share from $1.18 a share in the first half of 1956. Profit is after depreciation of $511,000 and all taxes.

	First half 1957	First half 1956
Ore milled	414,000 tons	418,742
Est. Net Profit ...	$765,200	$2,485,400
Per Share	36.4c	$1.18

• • •

Normetal Mining Corp. net profit slumped 67% at 14c a share from 44c a share in the first half of 1956. Net is after providing for $68,000 depreciation and all taxes.

	First half 1957	First half 1956
Ore Milled	192,600	199,827
Est. Net Profit	$542,500	$1,639,800
Per share	14.4c	43.6c

• • •

Torbrit Silver Mines net operating profit dropped 65% in the first half of 1956 at $16,900 from $48,200 net or 2c a share in the same period last year.

Exploratory diamond drilling continued underground but no significant additions to ore reserves have been found, reports J. A. H. Patterson, president.

Surface exploration is being carried on at company and optioned properties and a prospecting party is working in northern B.C. Cost of surface work of $28,800 is not included in the following figures.

	First half 1957	First half 1956
Ore milled	77,365 tons	67,151 tons
Est. Operating profit	$124,600	$183,400
Depreciation	$107,700	$135,200
Est. Net Op. Profit .	$16,900	$48,200

• • •

McIntyre Porcupine Mines net profit dipped to $1.58 a share in the first half of 1957 from $1.75 a share in the same period last year. Gross income was lower while costs increased.

	First half 1957	First half 1965
Gross income	$5,088,158	$5,302,941
Costs incl. Devel. ..	$3,555,109	$3,485,379
Taxes	$200,512	$378,234
Depreciation	$69,311	$41,879
Net Income	$1,263,226	$1,397,449

• • •

Kerr-Addison Gold Mines reports an estimated net profit of 51c a share in the first half of 1957, down from about 57c a share in the same period last year.

Costs averaged higher because of higher wage rates and the greater proportion of ore being broken by higher-cost mining methods of cut-and-fill and square-set stoping.

It is expected that average costs for the year may be lower that the Canadian domestic price than for the first half as a result of some non-repetitive mining costs incurred, particularly in the first quarter.

Access crosscuts on the 3,700 ft. and 3,850 ft. levels have reached the site of the new No. 4 Internal shaft. A shaft raise is underway between the levels and excavation for the hoist room on the 3,700 level has been made.

	First half 1957	First half 1956
Tons milled	814,478	826,440
Recovery, gold (oz.)	261,727.57	233,580.74
Value of production	$8,794,576	$8,151,092
Operating Profit ...	$3,924,624	$4,266,868
Misc. income	$107,593	$91,118
Depreciation	$311,250	$320,649
Taxes	$1,329,381	$1,367,167
Estimated net profit .	$2,391,586	$2,670,170

• • •

Noranda Mines net profit dropped to $1.58 a share in the first half of 1957 from $1.99 a share in the same period last year. The semi-annual report notes of copper was reduced Feb. 1 from 34¾c a lb. to 32½c, on Feb. 18 to 30¾c and on June 19 to 27⅞c.

Smelter expansion at Noranda will be ready this month to receive additional customs concentrates. **Coldstream Copper** has already started shipments and **Geco Mines** and **Willroy Mines** are expected to start in August.

The second 500-ton sulphuric acid unit is operating at Cutler and the new sulphur-iron plant is expected to start production this month.

Earnings of **Canada Wire and Cable** are not yet available but, largely due to the decline in value of metal inventories, it is expected they will be considerably lower than in the first half of 1956 ($1,245,000).

Compania Minera La India is in process of liquidation with interim payments of $1,466,000 (U.S.) received and a final payment of about $200,000 expected this year. Operations of **Empresa Minera de Nicaragua** resulted in estimated earnings of $75,000 for the half year.

Noranda Copper & Brass operations have been lower, reflecting credit restrictions and reduction of customers' inventories. Except for the large extrusion press, the new tube mill will be in full operation by the end of August.

Current mill production at **Gaspe Copper Mines** is at the rate of 3,100 tons of ore daily. Some 5,470 tons of copper were produced during the half year and concentrate containing 1,540 tons was accumulated pending resumption of smelting operations. Gaspe had a profit of about $1,928,000 before depreciation and write-off of pre-production expense.

Gaspe owes $36 million, down from debt of $38,360,000 at the end of 1956 and $46,744,000 at the end of 1955.

	First half 1957	First half 1956
Outp't, Inv'st. Income	$19,360,000	$19,564,000
Copper (Horne Mine)	14,313 tons	13,733 tons
Gold (Horne Mine)	92,144 oz.	108,438 oz.
Cost	$6,612,000	$5,569,000
Interest	$715,000	$580,000
Depreciation	$1,576,000	$576,000
Exploration w/o	$250,000	$250,000
Taxes	$3,135,000	$3,655,000
Est. Net Profit	$7,072,000	$8,934,000

• • •

Campbell Red Lake showed an increased profit in the **Dome Mines** group. Here are semi-annual results.

Dome Mines net slipped to 44c a share from 46c a share in the first half of 1956. The statement of estimated earnings showed operating costs higher at $7.87 a ton from $7.60 a ton.

	First half 1957	First half 1956
Tons milled	349,500	358,600
Gold	84,131 oz.	83,162 oz.
Value	$2,832,417	$2,908,798
Operating Costs	$2,749,939	$2,724,912
Cost-Aid	$217,000	$200,000
Depreciation	$68,140	$65,760
Ont. Mining Tax ..	$12,000	$18,000
Other Income	$721,608	$656,643
Income Taxes	$34,000	$60,000
Est. Net Profit ...	861,946	$896,769

• • •

Campbell Red Lake Mines had a slightly higher net profit equal to 17c a share, compared with 16c a share in the firs half of 1956. Operating costs rose to $8.61 a ton from $7.87. Recovery improved while tons milled declined.

	First Half 1957	First Half 1956
Tons milled	124,129	127,430
Gold	69,268 oz.	63,817 oz.
Value	$2,323,455	$2,225,930
Operating Costs	$1,069,156	$1,002,854
Depreciation	$199,268	$216,433
Def. Dev'p. Pre-Prod.	$51,653	$58,627
Mining Tax	$90,000	$59,000
Other Income	$57,904	$28,506
Income Taxes	$270,000	$243,000
Est. Net Profit ...	$701,282	$674,522

• • •

Sigma Mines (Quebec) reports a drop in net profit to 15c a share in the first half of 1957, down from 24c a share in the same period last year. Operating costs were higher at $5.34 a ton from $5.20 a ton and tonnage milled declined.

	First half 1957	First half 1956
Tons milled	193,753	207,091
Gold	35,879 oz.	38,209 oz.
Bullion	$1,207,989	$1,336,792
Operating costs	$1,034,993	$1,076,329
Cost-Aid	$60,000	$64,185
Depreciation	$47,310	$29,694
Mining Tax	$11,700	$13,224
Outside Expl.	$313	......
Other income	$25,679	$21,680
Income Taxes	$50,400	$61,019
Est. Net Profit	$148,952	$242,391

	Latest Price $	1957 High $	1957 Low $	First Half Earnings Per Share 1957 $	First Half Earnings Per Share 1956 $
McIntyre	103.50	116	71.50	1.58	1.75
Normetal	3.55	6.10	3.25	.14	.44
Quemont	12.25	19.00	12.00	.36	1.18
Torbrit	.34	.47	.32	.005	.016
Kerr-Addison ...	14.50	17.50	13.00	.51	.57
Noranda	48.00	57.50	46.00	1.58	1.99
Dome	12.25	14.25	12⅛	.44	.46
Campbell	5.20	6.20	5.05	.17	.16
Sigma	4.00	4.55	4.00	.15	.24

Low-Grade Iron Project For Gold Mining Camp

Another U. S. steelmaker is counting on part of Canada's vast low-grade iron ore reserves to help meet future ore requirements.

Jones & Laughlin Steel Corp. is believed to have earmarked its leased Kirkland Lake taconite iron ore prospect for future development although company spokesmen say no definite production plans are established.

But the third-ranking U. S. steel firm — specialist in the field of upgrading marginal and submarginal ores — has quietly taken the northern Ontario property under a 100-year lease and laid out initial plans for further exploration and metallurgical testing.

Located in Boston Township, about six miles south of Kirkland Lake, the property was explored by Jones & Laughlin over the past two and one-half years when some 20,000 ft. of diamond drilling was done.

This work was done under an option granted the steel firm by **Dominion Gulf Co.** which controlled the property.

The results:

—About 180 million tons of crude ore outlined, grading a little better than 20% iron.

—An indicated 60 million tons of concentrates, on the basis of a three-to-one concentrating ratio and using a 200-mesh grind.

—Open pit mining could be used on the deposit. The ore is said to be similar to that of the western Mesabi range of the U. S.

Preliminary planning involves a possible output of one million tons of pelletized iron a year.

Should the steel company decide to push development, it would mean a tremendous economic lift to Kirkland Lake—the big gold mining camp which, like others, needs such mining diversification.

Company officials told **FP** the Kirkland Lake property looks like a good bet to become their next source of iron ore. But no definite schedule for development had been decided on.

The company, however, has had discussions with the railways regarding all-rail shipment of pellets to Pittsburgh mills.

Involved would be the **Ontario Northland Railway, CNR** and **New York Central.**

Jones & Laughlin has been active in Canadian iron ore exploration for some years and still has a big-tonnage prospect in Quebec's Mont Wright area under option from **Quebec Cobalt & Exploration.** It is also believed to be investigating prospects in northwestern Ontario where it previously explored a siderite ore property in the Goulais iron range before dropping its option.

Another development under way near Bristol, Que., has Jones & Laughlin as one of three participants. This is the **Hilton Mines** operated by **Steel Co. of Canada,** in which Jones & Laughlin and **Pickands Mather & Co.** also have a share. However, this 660,000-ton operation would not likely mean more than 165,000 tons for Jones & Laughlin.

The steel company's exploration work in Canada is carried out by **Jalore Mining Co.,** a subsidiary.

Interest in the Kirkland Lake property may spring from success of Jones & Laughlin at its Benson mine in New York State where it has been experimenting with improved methods of processing lean ores.

The company in the U. S. operates six open pit mines in Minnesota, one in New York, and an underground mine in Michigan. It participates with Cleveland Cliffs and others in beneficiation of jasper ore from Michigan's Marquette range.

Jalore Mining began drilling the Kirkland Lake property late in 1954 and continued throughout the following year.

Basis of the interest in the range was a magnetic anomaly indicated by the Geological Survey of Canada through aeromagnetic work done in 1948. The anomaly extends for about four miles along a northwest-southeast axis and is about one mile wide.

The iron is in the form of magnetite interbanded with siliceous material.

Dominion Gulf, a subsidiary of **Gulf Oil Corp.,** acquired several claims in the area about six years ago. The company carried out prospecting, mapping, geophysical surveys and initial beneficiation tests on the iron material before turning it over to Jalore under option.

At Mont Wright, the Jones & Laughlin agreement with Quebec Cobalt & Exploration permits the steel firm to explore the property for two years.

The deal, which expires early next year, provides for leasing and royalty arrangements should Jones & Laughlin decide to go ahead with full development. The ore is low-grade magnetite, said to run to around one billion tons.

Elect C. B. Jacobs Caland Ore Head

Carl B. Jacobs has been elected president of **Caland Ore Co.,** which is developing iron ore body in the Steep Rock Lake area. Ray D. Satterley becomes vice-president and general manager of the Canadian subsidiary of **Inland Steel Co.**

These changes follow retirement of A. J. Cayia as president and general manager. Philip D. Pearson, manager of Caland operations, was elected a director.

When Does the Market Get Out of this Rut?

FABLES AND FANCY FOOTWORK ARE CLEANING UP BAY STREET FOR THE BIGGEST BOOM YET

IT IS with the greatest of pleasure that we announce at this time that there will always be a Canadian Stock market. You may disagree avidly, but we have finally had proof.

Copper futures have been edging uphill in London for two weeks.

But brokers in Toronto have been buzzing about another rumoured decrease in the price of copper.

Nobody knows where the price-drop rumours are coming from — which always makes a rumour seem devastatingly accurate.

And facts being so monotonous, nobody has taken much stock of the fact that copper has actually started a fresh advance.

Ergo, Toronto is falling all over itself to get out of the market and stay out — which is the healthiest thing we've seen in six months. It is healthy because it proves irrevocably that nothing whatsoever has happened lately to change the fundamental nature of man. He is still the hopeless clod he always was — doing everything at the wrong time and blaming the government when two wrongs in a row fail to make a right and his broker calls him for more margin.

How does this prove there will always be a Canadian market? Well, it proves that the public is still at the old stand making all the same old trading mistakes. It is making a mistake right now clamoring out of the market when the old hands are buying; and once the public is out of the market it can only continue to display its stupidity by clamoring back in again — after key issues have been marked back up and the old hands are ready to unload.

But obviously we can't have the public clamoring foolishly back into the market until it has finished clamoring foolishly out. So just be patient for a while, and however fantastically bad things may look today, rest assured they'll look just as fantastically good tomorrow.

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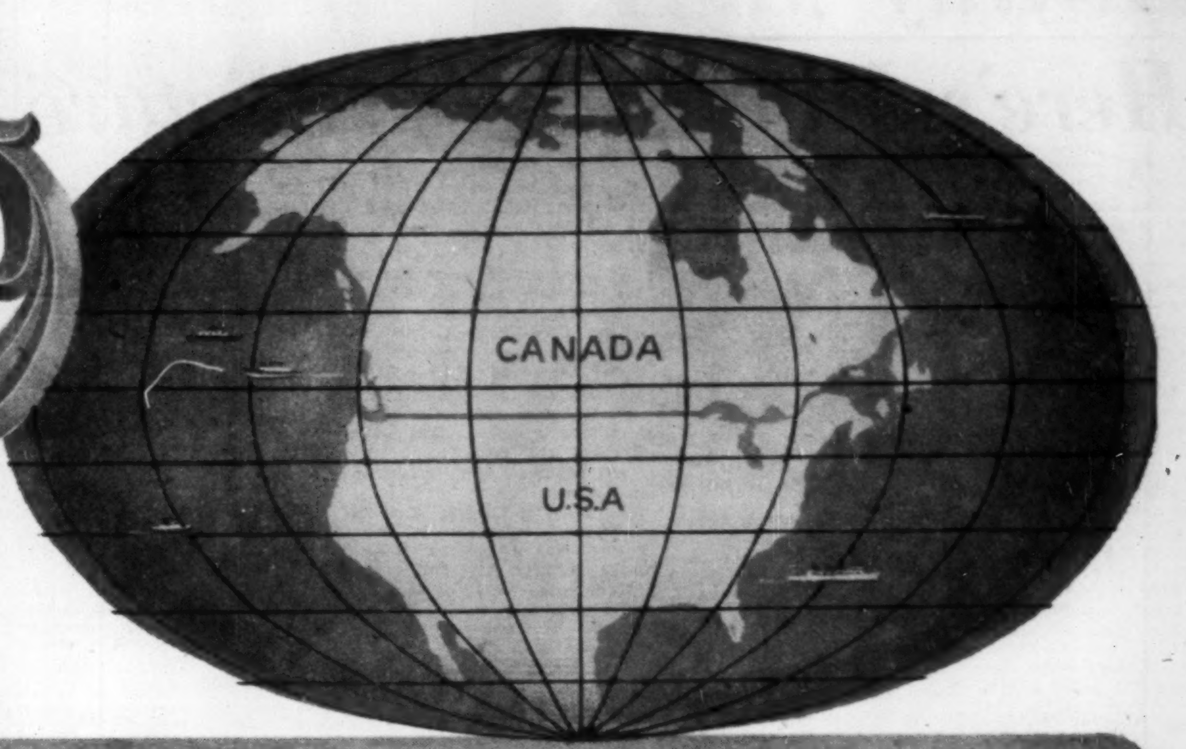

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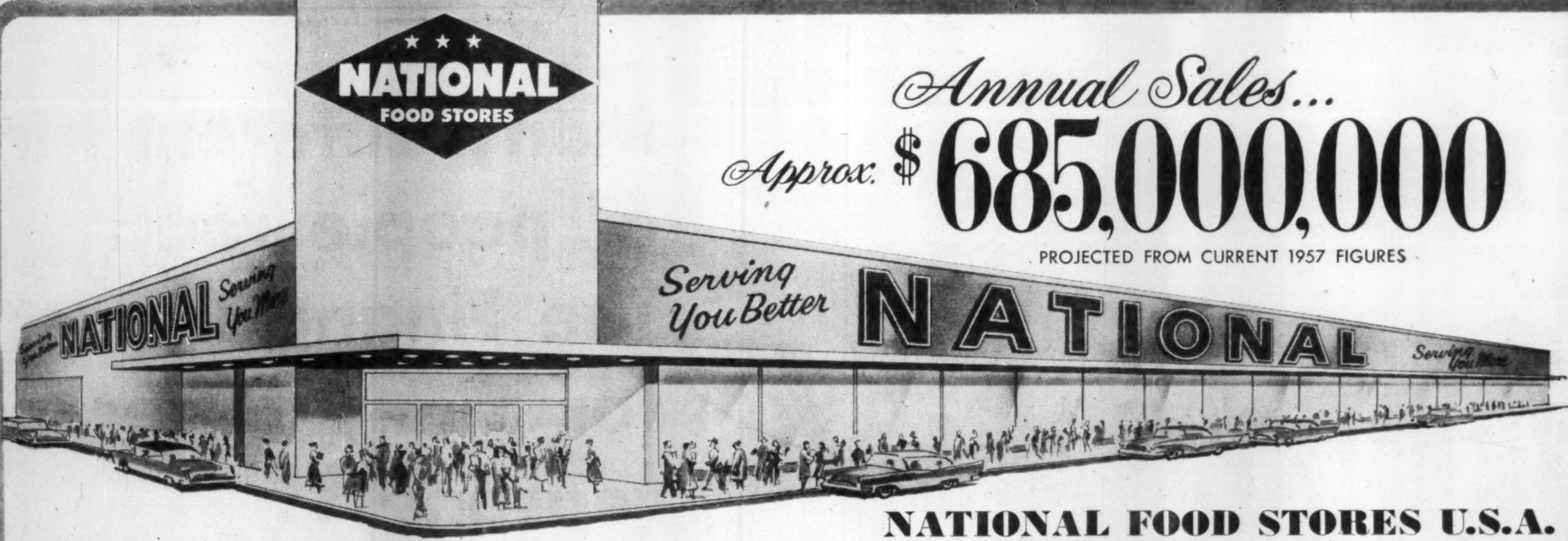

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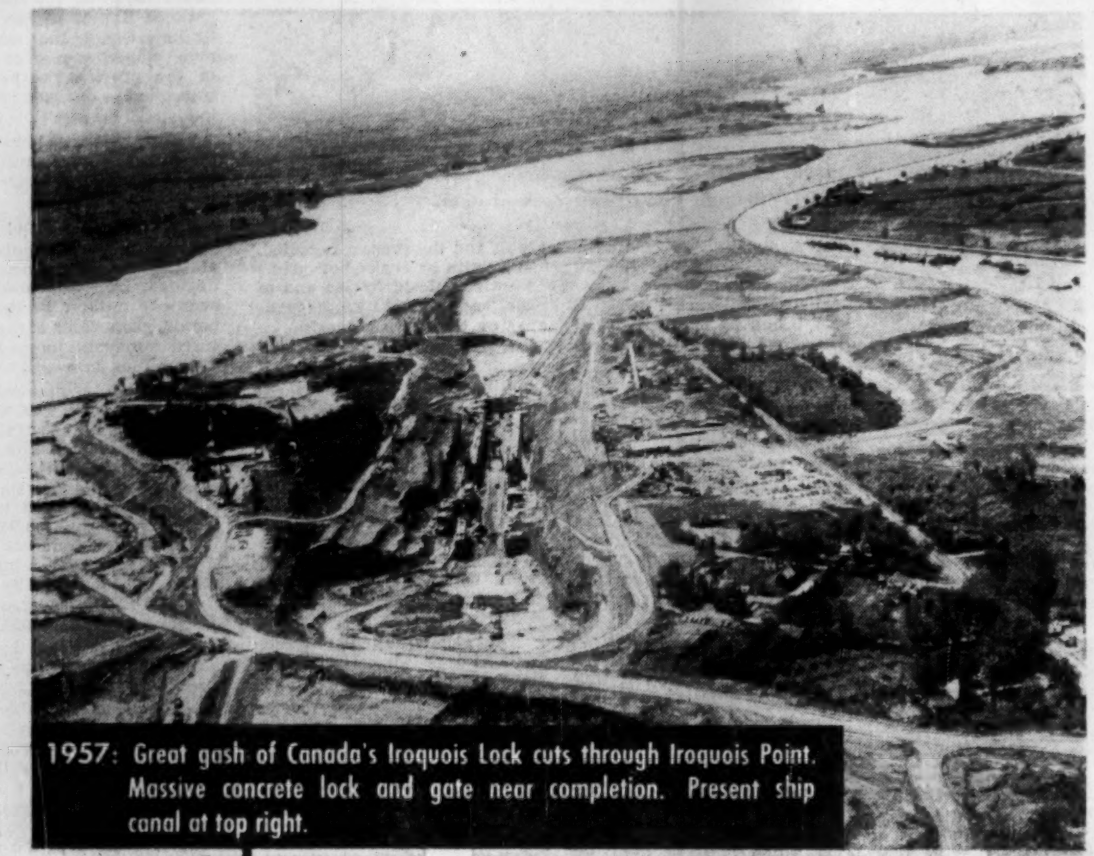
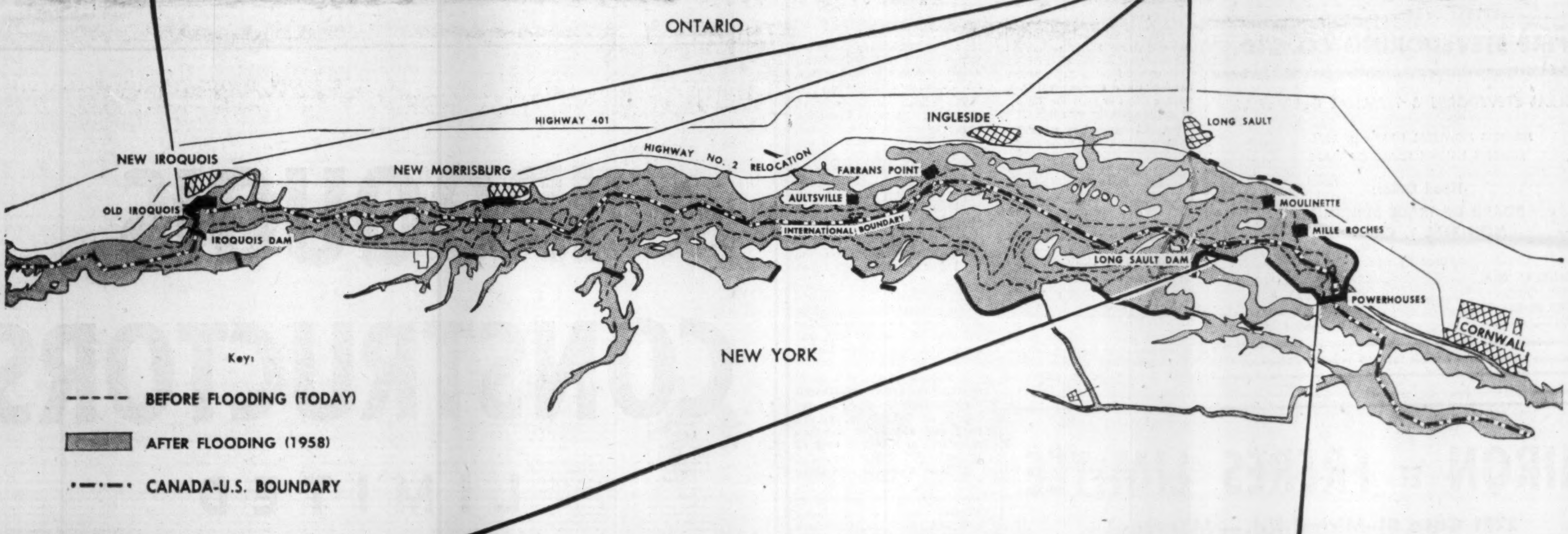
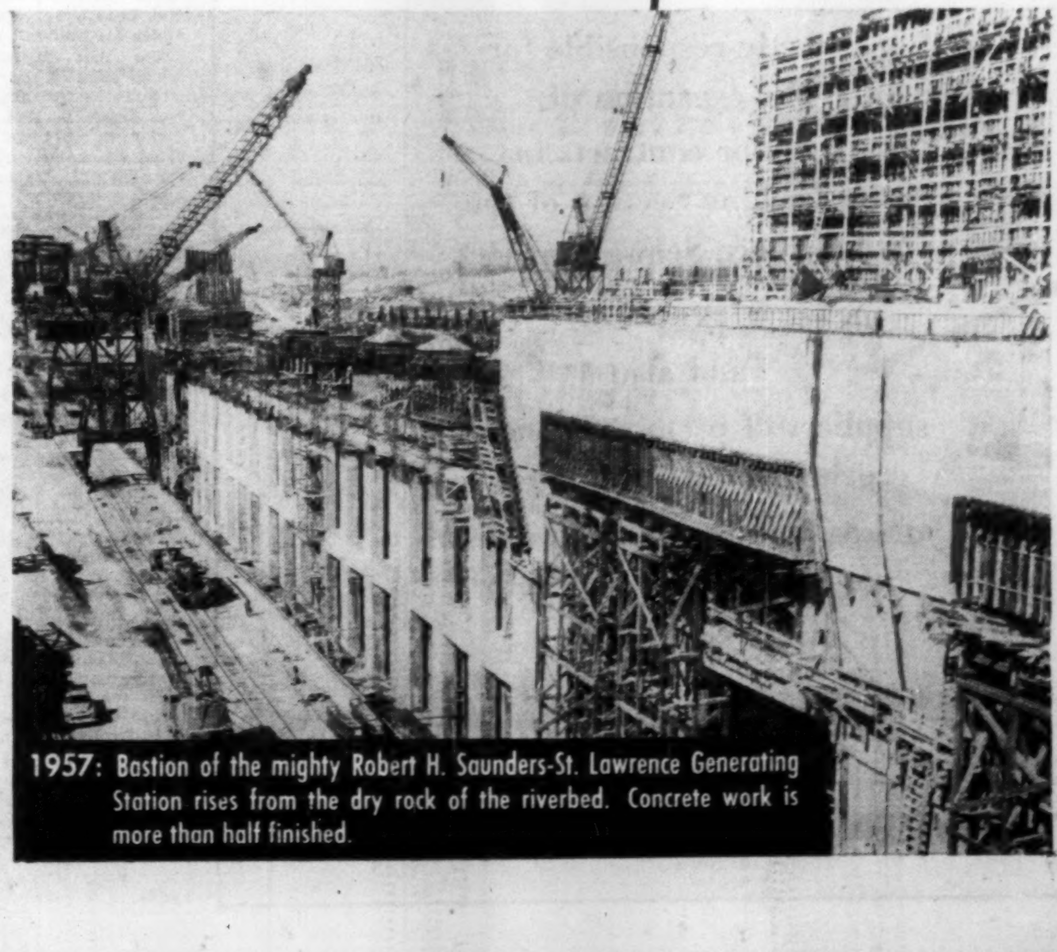


1957: Great gash of Canada's Iroquois Lock cuts through Iroquois Point. Massive concrete lock and gate near completion. Present ship canal at top right.

1957: Neat, modern new towns have sprung up on high ground. They replace villages and towns which will be flooded next year. Compensation spats have been happily settled.



1957: Enormous units of construction equipment look like children's toys on the Long Sault Dam project. This armada of machinery is dwarfed by the immensity of the job.



1957: Bastion of the mighty Robert H. Saunders-St. Lawrence Generating Station rises from the dry rock of the riverbed. Concrete work is more than half finished.

Photos by Photographic Survey Corp. and Ontario Hydro

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Giant Power Project 60% Completed

Next year much of the turbulent International Rapids section of the St. Lawrence River will become a headpond 23 miles long for a 2.2 million hp. hydro development.

Construction of this project—the St. Lawrence Seaway Power Development—is now about 60% complete.

The International Rapids section runs from the western end of Lake St. Francis 47 miles to Chimney Point, near Prescott, Ont. The headpond will run from a point two miles west of Cornwall, itself just west of Lake St. Francis, to Iroquois.

It will flood 38,000 acres of rich Ontario and New York State farmland, plus seven Canadian villages and part of an eighth.

This requires moving and resettlement of 6,500 people, many of whom are descendants of United Empire Loyalists who settled there in the 18th century.

Harnessing the river requires the building of two powerhouses and two dams, all of which will be carried on without interruption to navigation:

The adjoining powerhouses, one on either side of the international boundary, will span the channel between the eastern shore of Barnhart Island and the Canadian shore. Each will produce 1.1 million hp. from 16 generating units; the structures themselves will act as a gravity dam.

—The Longue Sault Dam will be the second downstream dam, blocking off the southern channel between Barnhart Island and U. S. mainland. This dam will create the headpond and, when the powerhouses are in operation, will allow excess flow to bypass them.

—The Iroquois Dam, to run from Iroquois Point on the Canadian side, to Point Rockway on the U. S. side, will control the outflow from Lake Ontario.

In addition to construction of the powerhouses and dams, about 3.5 miles of dyking is being built on the Canadian shore in the area north and west of the powerhouses.

These dykes will be flat across the top and the sides will slope. Their function will be to contain the headpond. They will require 4.9 million cu. yds. of earth and 330,000 cu. yds. of stone. The four basic power structures will require 2.7 million cu. yds. of concrete and 20,600 tons of structural steel.

The idea of the project is to utilize the drop in water level between the eastern end of Lake Ontario and the powerhouse site near Cornwall. Because it is spread over a 125-mile stretch of the river, this drop (about 92 ft.) is of little value for power purposes unless it is concentrated at one point.

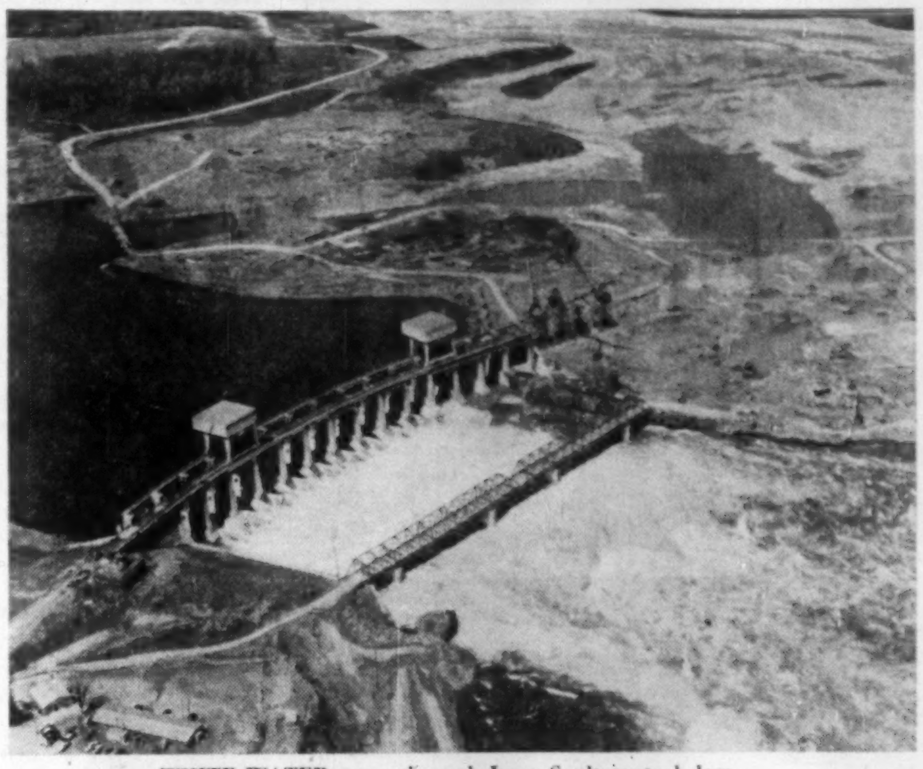
The control structures will do this and the average operating head will be 83 ft.

The cost of the power project was estimated in 1954 at $600 million and both Ontario Hydro and the New York State Power Authority are "sticking" with this estimate, despite the fact that it's easy to demonstrate that costs of the navigation portion of the Seaway project have considerably increased.

Costs of construction, maintenance and operation—excepting costs of powerhouse equipment—will be split equally between the two bodies. The two powerhouses will be operated jointly, and the power, of course, will be split.

Explaining their continued $300 million estimate as their share of the power project costs, Ontario Hydro officials say:

"It may be that our 1954 estimates and calculations were more precise than were those of the men who worked on calculations of costs of the navigation phase. We've been working on this for years with models."



WHITE WATER roars through Long Sault control dam.

Some of the increased costs of the navigation phase have been due to design changes.

How They Planned

How did Hydro and the New York State Power Authority go about this immense power project?

It was decided that the major part of the construction—including the Longue Sault and Iroquois Dams—would be handled by the Power Authority. Ontario Hydro took on the difficult social and psychological task of relocating 6,500 people.

Plans for concrete-laying for the dams and powerhouses included elaborate arrangements for the building of cofferdams, in sections, so that the sites could be temporarily dewatered.

The job got under way in August, 1954, with international sod-turning ceremonies at Cornwall and Massena, N.Y.

Early construction activity centred on powerhouses. Two cofferdams were built to dewater the powerhouse site, the first stretching 500 ft. across the north channel of the St. Lawrence from Sheek Island on the Canadian side to Barnhart Island on the U. S. side; the second spanning the north channel from the Canadian mainland to Barnhart Island.

The second year, 1955, was devoted almost entirely to excavation and the preparation of sites. Last year, the project began to take shape.

By the end of 1956, 405,000 cu. yds. of concrete had been placed; it's expected that, by the end of this year, an additional 500,000 will be laid. This is 90% of the concrete work.

Some 71% of the powerhouse installation is scheduled for completion this year; this involves the installation of four turbines and work on a fifth. Preliminary work is also to be done on two generators and the installation of two more started.

Cofferdam Building

Both Longue Sault and Iroquois Dams are being built in two sections; the cofferdams dewater half the river bed, construction is completed, then a new set of cofferdams are built and the process repeated. The south halves of both dams were completed by the end of 1956 and work is now proceeding on the north halves.

A major part of the St. Lawrence development is excavation on points of land and on several islands for channel improvement; this work is expected to be almost complete by the end of 1957.

Also nearing completion by year end will be the new St. Lawrence transformer station—built to replace that at Cornwall and to carry the output from Ontario Hydro's generating station into the Southern Ontario system.

The rehabilitation program will also be almost complete by December.

The 6,500 people have been and are being moved from the villages of Iroquois, Aultsville, Farran's Point, Dickinson's Landing, Wales, Moulinette, Mille Roches, part of Morrisburg, as well as from farms located along the river's north shore.

The people are largely settled in three new communities, New Iroquois, Longue Sault and Ingleside, where work on roads, waterworks, sewage treatment plants, sidewalks, shopping centres, schools and churches is in various stages of completion. A new subdivision and business centre is being built in Morrisburg.

The abandoned townsites will be cleared by the end of 1957.

When construction has advanced to the point where power can be generated, the gates of the Longue Sault Dam will be lowered, forcing the level of the river to rise. Within 24 hours, the turbines will be spinning and the 150-year-old villages swallowed up.

Why Power Vital

The Seaway power development is important to Ontario, in general terms, in the same way that the Suez Canal is important to Europe.

Fast-growing Ontario's industrial needs are outstripping power supplies; and the International Rapids section of the St. Lawrence is the last major undeveloped source of power in the province within easy transmission distance of major industrial centres.

The project will help to tide the province over until cheap and plentiful nuclear power becomes a reality.

Here are a few figures:

In 50 years, the population of Ontario has more than doubled, from 2.25 million to over 5.25 million. In the same period, gross value of manufactured products jumped from $368 million to over $9 billion.

The close relationship between the growth of Ontario Hydro and the growth of the province is indicated by figures on power demands. In 1910, when the commission started to deliver power, it had to meet demands totaling 4,000 kw. Last year, requirements reached 4.6 million kw.—a multiplication of demand by 1,200 times. And the 1956 figure was 8% above that for 1955.

It's estimated that by 1980, power demands will be four to five times what they are today—i.e., perhaps 20 million kw.

Most of the difference between today's production and 1980's requirements will have to be developed from more expensive thermal sources; however, the Seaway Power Development will produce an important 880,000 kw.

Probably after 1980 nuclear power sources will be substituted on a large scale for thermal sources.

Welland Canal a Key Link Between Seaway, Mid-West

The Welland Ship Canal, Seaway link which bypasses Niagara Falls, has been a major channel for U. S. and Canadian commerce since it was opened in 1829.

It runs from Port Weller on Lake Ontario 27 miles across the Niagara Peninsula to Port Colborne on Lake Erie; seven lift locks and one control lock enable ships to pass the 325-ft. drop between the two lakes.

Present canal has a 200-ft. bottom with a governing depth of 25 ft.

The St. Lawrence Seaway Authority—for this operation is a Canadian one—has awarded six contracts for dredging and widening the existing canal to bring it to the governing Seaway depth of 27 ft.

This is a $21-million job of which somewhat less than half has been done. Two contracts have been completed and two are nearing completion.

Three sections of the canal between Locks 1 and 4 (at the north end) can be dewatered from the end of December to the end of March and work done on the dry bottom.

Of three "dry" contracts involved, two were completed in the winter of 1955-56. These involved the removal of 144,000 cu. yd. of "common" materials by **McNamara Construction,** Toronto ($409,000), and of 50,000 by **Aiken & MacLachlan,** St. Catharines ($130,000).

The third dry contract, awarded to **Swansea Construction,** Toronto, is a larger one, calling for the removal of upward of 500,000 cu. yd. of material at a probable cost of $1 million. Work has been going on on this job for two winters, will begin again next December.

"Wet" Contracts

Here's a rundown on the "wet" (i.e., dredging) contracts:

1. **Port Weller,** Lake Ontario to Lock 1; contract awarded to **J. P. Porter Co.,** Montreal, for removal of 320,000 cu. yd., completed in April at a cost of $604,000.

2. **Thorold,** south of Lock 7, contract awarded to **Russell Construction,** Toronto, for removal of 400,000 cu. yd. of rock and 250,000 of common materials, at a cost of over $7 million; still under way.

3. **Port Colborne,** dredging both north and south of the port; contract for removal of 672,000 cu. yd. of rock awarded jointly to McNamara and **Canadian Dredge & Dock.** Work started last fall and is to end next year; cost will be above $11 million.

The first Welland Canal, which utilized some of the streams in the neighborhood, was begun in 1824 and completed in 1829. In 1841, the canal was bought by the Government of Upper Canada which enlarged it.

The waterway came under the newly-formed Federal Government at Confederation in 1867; soon after Confederation in line with its "National Policy" of improving transportation routes, the Government began a major job of improvement.

This took from 1873 to 1887 and the canal was rebuilt according to "St. Lawrence Waterway" standards of the time—in accordance with those governing the Soulanges and Lachine Canals.

The "fourth" Welland Canal—substantially the present one—is the result of a complete reconstruction job which was begun after World War I, dropped during the conflict, begun again afterward, and finally completed in 1932.

All the locks were rebuilt; the 26 cut stone locks of the "third" canal (which each had lifts of 12 to 14 ft.) were replaced by the present seven locks with a lift of 46.5 ft. each and the non-lift control lock.

The present locks are 80 ft. wide, 859 long. Nos. 4, 5 and 6 are double locks, the rest single.

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Robert H. Saunders Power Project, Cornwall, Ont.

Railway Relocation (Part C), Morrisburg, Ont.

Channel Improvements, Iroquois Point

For St. Lawrence Seaway Authority:—

Iroquois Canal & Lock Project, Iroquois, Ont.

Construction

Round-the-Clock Show for Tourists

The visitor to Eastern Canada this summer who avoids touring the Seaway construction project is a rare bird indeed.

A rare one, and an unlucky one. Because the "big ditch" is Canada's most breathtaking man-made phenomenon.

The public has been saturated with facts and figures. This costs so many millions, that so many more. Over 18 million cu. yds. of earth to be dredged, over 51 million to be excavated.

These are stirring figures indeed. Yet they only tell a part of the story.

The touring visitor sees a sight which in its scope and daring may never be repeated in a life-time.

From the shadow of Montreal's skyline, southwest to the mouth of Lake Ontario, the Seaway is something real, something to live with.

The sound of the Seaway is something that sticks in the memory. Close-up it is fiercely loud. The grinding, snarling machines eating their way through granite-hard earth.

It is a different sound when further away. Then it is the far off rumble that floats inland from the river through the night.

It is then, when most people are sleeping, that the Seaway changes into a world of arc lights and dust clouds.

Star performers in the Seaway show are the machines. They come in all shapes and sizes.

New Machines

There are ingenious new machines like the flame red "Jet Piercer" which eats through solid rock at 30 ft. an hr. to form drill-holes for high power explosives.

There are diesel shovels which load earth and rock into trucks which rumble away with 45 tons on their backs.

There are dredges which are working from Montreal Harbor, up the lakes St. Louis and St. Francis, through the upper river and the reaches of the Welland Ship Canal. These can dig up to 16 tons at a time of silt, sand and rock.

Concrete is placed on the towering steel and wooden forms from 10-ton buckets to shape the walls of locks and other structures.

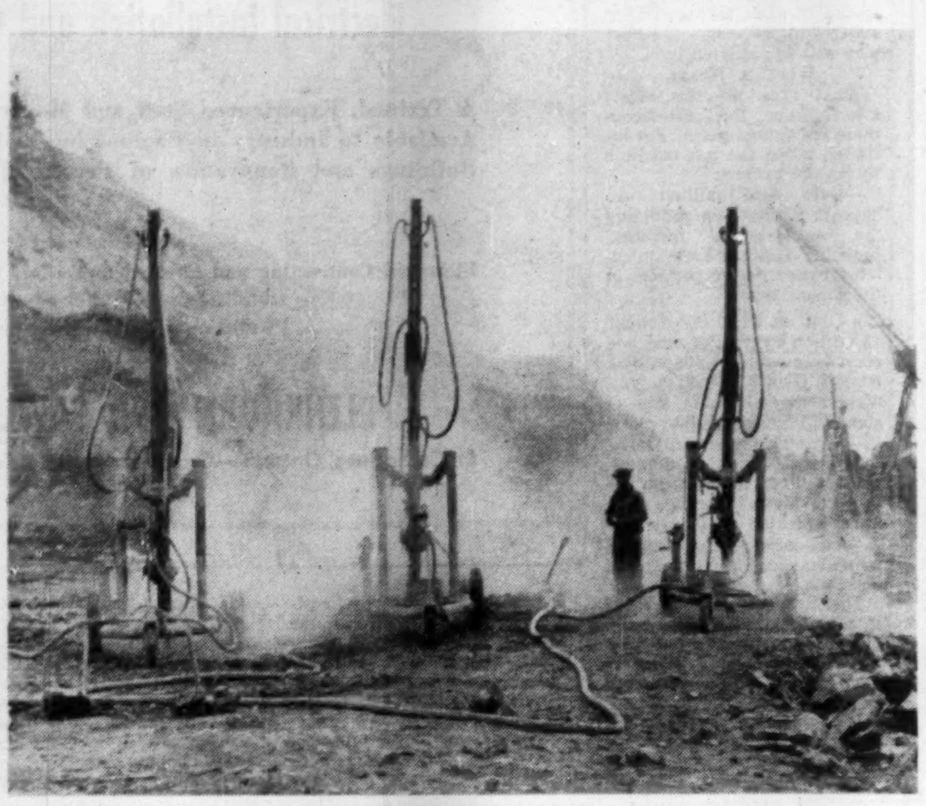
The churn drills, rock waggons, big bladed scrapers, bulldozers and the rollers, the towering gantry trains, draglines, pile drivers and the 600-ton hydraulic jacks for lifting towering bridges — all these are at work on the giant project.

In action the moving machines are perpetually pursued by plumes of the ever present dust.

In a supporting role to the machines are the men. From a distance they appear to be swarming ant-like over the project, apparently serving the every whim of the proud mechanical monsters.

Multi-colored helmets lend an unusually gay atmosphere to the whole proceedings. Their bright colors, however, serve a direct purpose.

For insatnce, yellow means a carpenter, green a concrete worker, one shade of blue means steel worker, another electrical, white means authority or else a "white collar" man just up for the day, silver means mechanical work, multi-colored denotes special mechanics.



HACKING THROUGH limestone is a tough job, and even tougher when it's covered with glacial till as dense as concrete. That's the problem at Iroquois Lock.

Many Languages

The workers are drawn to the project from all parts of the world.

These men are pulling in good money most of the time. It is not unusual for an unskilled laborer to earn $425-$450 a month. Semi-skilled wages are correspondingly higher.

Most men work a 10-hr. shift. It's grueling work with little or no rest time.

The specialists, such as concrete pourers, who must go around the clock, are divided into three eight hour shifts.

This mass of manpower looked rich pickings for the more ambitious labor unions.

Never one to pass-up the main chance, the rough and ready International Brotherhood Teamsters made a bold bid to organize the Montreal based construction firms in the fall of 1955.

The campaign was going well, when the union ran into **Miron Freres Ltd.** Following skirmishes and the forceful intervention of Quebec Premier Maurice Duplessis, the union withdrew.

Meanwhile the Canadian Labor Congress in Ottawa moved to set-up a council that would bargain for all the men. The companies set-up a similar organization.

Little Unrest

The Seaway project has advanced steadily without even a serious ripple of labor unrest. Had the more cavalier Teamsters got a foot in the door the situation could have been very different.

Communities along Seaway Valley were worried about the human problems the influx of new workers might produce. Would they be rough and hard drinking in their off-duty times?

In fact the 1957 migrant construction crews have won friends all along the way. Many were family men and brought wives and children to live with them. The new arrivals started showing up at parent-teacher meetings, they supported their local churches.

And, of course, their fat Seaway pay packets helped to keep the cash registers of the districts ringing a happy song.

At each individual project—i.e. Welland, Iroquois, Cornwall, Beauharnois, Cote Ste. Catherine and St. Lambert, there is a field division office of the Seaway authority.

Each is similar to a wartime company or squadron headquarters. Each has a form of "orderly room" doing the piles of paper work. And each has a "CO" or Division Engineer.

These are colorful men with plenty of construction work behind them.

Typical is Paul N. Smith, Engineer at Beauharnois. His office, which he visits between frequent trips to the work site, is spacious and nicely appointed. The walls display maps and aerial photographs of the work as it goes ahead.

He has a wealth of construction experience behind him, which stretches from the Pine Tree Line to Ceylon.

His command now extends over a maze of imaginative construction work. The job is to build two locks that will allow ships to pass from the 16-mile-long Beauharnois Power Canal, by-pass the giant power dam of the **Beauharnois Heat & Power Co.** and on into Lake St. Louis.

Huge Tunnel

A multi-lane tunnel is being built under the lock for highway transport. A movable railway bridge must span over the locks.

Earth gouged from the canal surface and from the new by-pass canal has been laid out to form a half-mile long peninsula sticking out into Lake St. Louis.

This, he explains, is to form a barrier between the turbulent waters gushing through the power project and the lock entrance. It will allow ships a calm passage.

The **New York Central - Canadian Pacific** railway line cuts across the area. A swing bridge must be built — at a cost of $6 million. And the work must be carried out on a schedule that will not interfere with rail traffic for even one day.

Right in the heart of the area is the small town of Melocheville. The work entailed cutting off its water supply. The Authority had to ensure that tanker trucks keep up the supply every day.

Further up river at Iroquois the visitor gets the best idea of what the finished product will look like. There the first lock is nearing completion.

On the small Iroquois Island set in mid-river between Canada and the U.S., New York Power Authority crews are at work on the Iroquois Dam. It stretches 1,910 ft. across the river.

Ready in Spring

The Iroquois Lock comes into operation next spring. It has the Seaway 27 ft. depth, but as the rest of the system will not be ready, it will serve the present 14 ft. trade.

At Cornwall the first foundations for new International Bridge have been sunk into the earth. On the South Shore of the river opposite bustling Montreal, planners are hard at work to keep the already congested traffic moving as bridges receive necessary alterations.

All along the route dredges dig and scrape the river bottom, depositing the millions of cu. yds. of mud and stone that have to give way to allow a 27 ft. draft.

The tour completed the visitor goes home his head buzzing. It may be the sights and sounds that remain uppermost, or the self assurance of the men and the force and vigor of their machines.

But make no mistake, the visitor does not soon forget his trip along the "big ditch".

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Progress

Jobs on Schedule

At mid summer—three years after the St. Lawrence Seaway Project was begun—the Seaway Authority has taken a look back over the progress.

Things are rolling on time along the 112 miles between Montreal and Prescott at the head of the International Rapids section, authority President Charles Gasie reports.

A program of deepening at the Welland ship canal is also well advanced.

All dredging contracts, the excavation and concreting contracts have been awarded, and a number of them, several of major importance, are already completed.

In the months ahead the activity will be concentrated on the completion of concrete structures and the fabrication and installation of lock gates and other features as well as the construction and modification of nearly 12 bridges across the St. Lawrence Seaway channel.

According to the latest engineering report the dry excavation stands at 63% completed.

More than 35.5 million cu. yd. of rock, earth and other material have been dug from the stream side to prepare the Seaway channel.

A great fleet of dredges has removed from the river bed no less than 7.5 million cu. yd. of rock, sand, silt and other overburden for a progress figure of 41%.

Concreting which had, of necessity, to wait upon excavation stands at 36% complete. The quantity placed is 725,030 cu. yd. or nearly 1.5 million ton.

There are at present some 5,400 men at work on the 90 contracts for construction and supply which have been awarded by the Canadian Seaway Authority. The value of these contracts is over $230 million.

47 Contracts

In the Lachine section, the most important from the point of view of quantities and contractual cost, 47 contracts for a total value of $99,864,433 have been awarded. There are 2,724 men employed on this work. The completion figure here stands at 45%.

Of the six contracts in force in the Soulanges section near Beauharnois, 1,242 men are at work. Contracts are valued at $38,251,904 and 25% of the work has been completed.

The three dredging contracts at Lake St. Francis are valued at $5,764,000 and are 75% complete. There are 332 men on the job.

At International Rapids section 12 contracts have been awarded at a value of $35 million. There are 628 men at work and the contracts are 25% completed.

At the Welland Ship Canal about one-fifth of the work has been finished. The value of dredging and excavating contracts is $21 million. On this work 500 men are now employed.

A detailed breakdown section by section shows at midsummer:

Lachine Section. This extends from Montreal Harbor to the head of Lake St. Louis and is 31 miles long. Here activity is most varied and intense.

The entrance to the Seaway channel from Montreal harbor is being dredged and a channel for 10 miles provided by this method in Lake St. Louis.

In this section are being built two locks, three turning

Continued on page 44

United Waterways' fleet of INTERNATIONAL

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Big, fast and tough to take the big jobs in their stride, International *Pay*haulers have won high praise from United Waterways,* who are using a fleet of 11 on the Upper Beauharnois lock of the Seaway.

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**United Waterways comprises Angus Robertson Ltd. (organizing contractor), H. J. O'Connel, Foundation of Canada, and Pentagon Construction.*

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56-34

Seaway Statistics

How, How Much, When and Where?

The sprawling inland sea of the Great Lakes and the wide St. Lawrence flowing freely to the Atlantic have long played an irresistible part in men's dreams of the future for our continent.

From the days of Jacques Cartier onwards men have been trying to open the water highway to bigger ships and—in recent years—to harness the tremendous hydro - electric power potential of the waters.

The Seaway-Power Project will accomplish these two objectives by:

- Creating a 27-ft.-deep waterway from the Lakehead to the sea. Present controlling depth is 14 ft.
- Producing 2.2 million hp of electricity, which will be shared equally by Canada and the U. S., by utilizing the drop in the International Rapids section of the St. Lawrence.

This summer, under a constant canopy of dust, grotesque machines and sweat stained men have forged on and on, gouging out the passage that will be ready by the opening of navigation in 1959.

All this work and expense—some $500 million—is going into only 108.5 miles of the more than 2,300 miles of the whole waterway. The rest is being supplied free of charge by nature.

It was to move the final relatively small bottlenecks that the Seaway project was launched.

Getting this sort of show on the road takes organization. Because of its enormity, and because of a sudden belated spurt of enthusiasm in both Canada and the U. S., red tape was cut to a minimum.

The Authority

Yet although the Act establishing the St. Lawrence Seaway Authority was passed in 1951, the appointment of members was not made until July 1954.

First president of the authority was the Hon. Lionel Chevrier, a former minister of transport and long time advocate of the Seaway. His place has now been taken by Charles Gavsie, who was formerly vice-president.

The authority received its incorporation to fill these two roles:

—"To acquire lands for and constructing, maintaining and operating all such works as may be necessary to provide and maintain, either wholly in Canada or in conjunction with works undertaken by an appropriate authority in the United States, a deep waterway between the Port of Montreal and Lake Erie;

—"Constructing, maintaining and operating all such works in connection with such a deep waterway as the Governor in Council may deem necessary to fulfill any obligation undertaken or to be undertaken by Canada pursuant to any present or future agreement."

The administrative centre and the engineering offices of the Seaway authority are located in Montreal, with a head office in Ottawa. The headquarters of the authority will be located in a smart new building now under construction in Cornwall, Ont.

The Seaway, of course, is not entirely a Canadian operation. In 1954 the U. S. Government established the St. Lawrence Seaway Development Corp. for the purpose of constructing the Seaway in the International Rapids section.

Since that time Canada and the U. S. have co-operated in the construction of the required works with only an occasional disagreement that has successfully been kept for the large part out of the public eye.

When necessary the president of the St. Lawrence Seaway and the administrator of the St. Lawrence Seaway Development Corp., attended by senior officers and their staffs, meet to discuss common problems, construction schedules, co-ordination of work, tolls and other matters to make sure the Seaway will be ready on time.

IVY LEA BRIDGE in the Thousand Islands: Green islands and tourist paradise. Main St. Lawrence channel upriver from Seaway locks.

What It Means

What does all this effort mean? For the statistician there are figures galore. For instance, when the last machine leaves the project:

—Over $425 million will have been spent on providing the navigational facilities, probably as much again on related hydro power projects in the general area.

—Dredges will have scooped 18 million cu. yds. of mud and rock, excavators dug 51 million cu. yds. Over 2 million cu. yds. of cement and 57,375 tons of steel will have gone into place.

—Some 15,700 men will have, for various lengths of time, made a direct living from the project. Many thousands more have benefited indirectly.

—Ten new bridges and a multi-lane highway tunnel will be in use.

The Seaway is much more than just figures. It is the story of old homes waiting stoically now near the water's edge for Seaway progress to drown them.

It is, too, the problems and opportunities that face shipping men. Their doubts that these long summer days are argued back and forth in offices from Montreal to the Middle East. What will it all cost? Will there be economic loads? What are the tolls going to be? These are real and pressing problems.

The Seaway is a melting pot for skilled and vigorous men from many parts of the world who work together in blistering sun and sub-zero winter. It is a test of international goodwill and intelligent diplomacy as the U.S. and Canada move side by side towards the Seaway era, all the while keeping a weather eye open for trade developments that could react unfavorably for either parties.

In the following pages FP writers set out the record of this many-faceted wonder of modern engineering. Where it stands in the summer of 1957, and what it will mean to us on opening day now little more than 18 months away, and in the years that will follow that glittering occasion.

Important Dates

1535: Jacques Cartier, French explorer, anchors in Gulf of St. Lawrence.

1760: Proposal by Col. Frederick Maitland, later Governor of Quebec, for building of Lachine Canal.

1895: Creation by U. S. and Canadian governments of International (waterways) Commission; body is instructed to report on the feasibility of a deep channel from the Great Lakes to the sea.

1909: International Joint Commission created by two governments, with jurisdiction over boundary waters.

1921: Wooten - Bowden Commission submits first comprehensive report to IJC on improvement of Great Lakes-St. Lawrence waterway.

1927: Canadian committee proposes 27-ft. seaway channel.

1932: St. Lawrence Deep Waterway Treaty signed by U. S. and Canada as preliminary to Seaway construction. Turned down by U. S. Senate.

1938: U. S. submits new Seaway proposal and treaty to Canada.

1941: Negotiations bog down because of war, but an agreement is signed between the two countries providing for joint construction of some works.

1945: Project revived. Objections are mustered in Senate and Congress.

1949: Ottawa suggests all-Canadian Seaway.

1951: Ottawa establishes St. Lawrence Seaway Authority with authority to build it.

1952: Agreement between Canada and Washington that Canada will "go it alone."

1953: U. S. agrees to participate in Seaway; operative bodies are created.

August, 1954: Sod - turning ceremonies at Cornwall, Ont., and Massena, N.Y.

November, 1954: First construction. Dynamite is exploded on Seaway channel near Montreal.

August, 1957: Power project more than 60% complete; excavation for navigation phase 65% complete.

Summer, 1958: Power project in operation?

Spring, 1959: Seaway opening?

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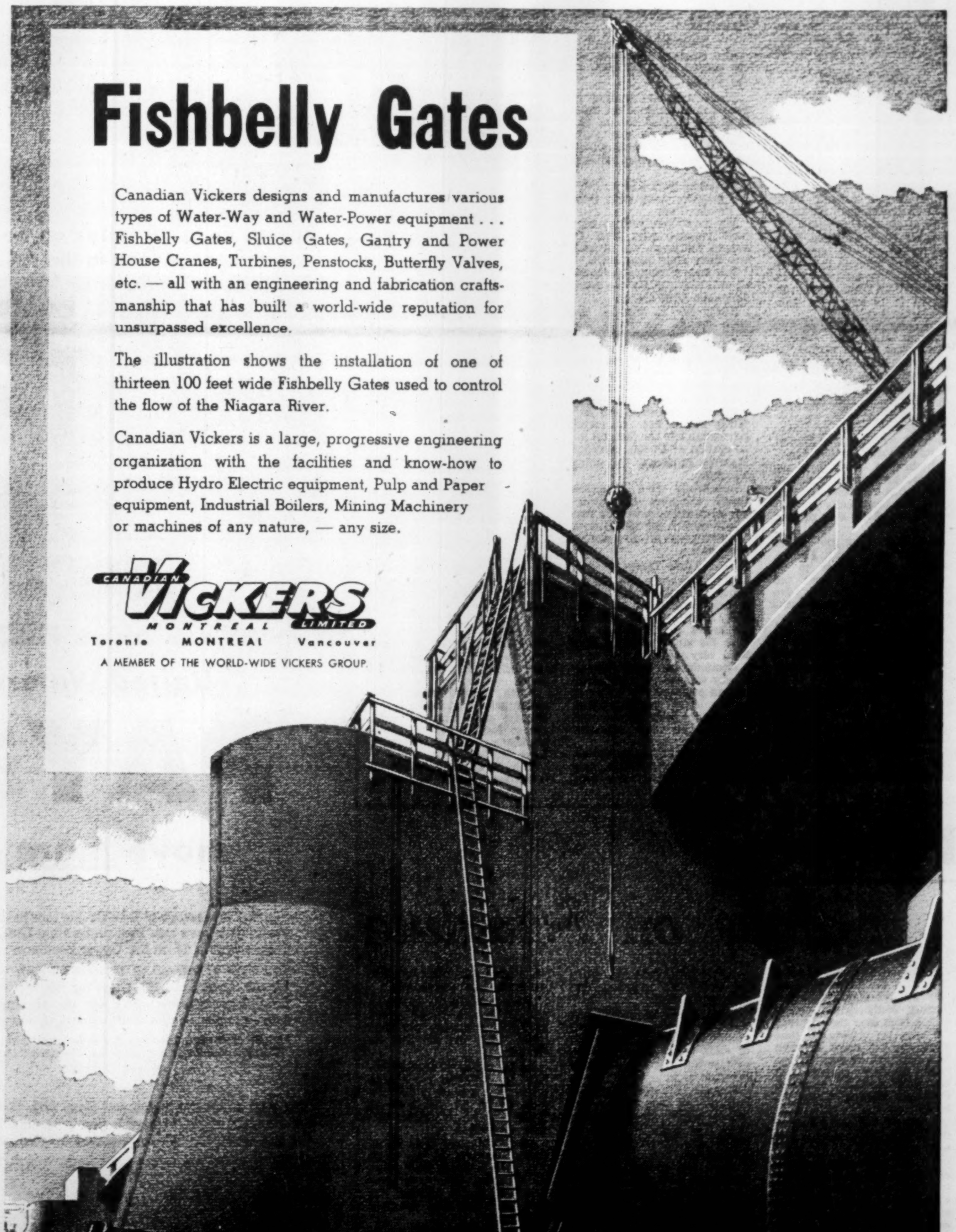

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The illustration shows the installation of one of thirteen 100 feet wide Fishbelly Gates used to control the flow of the Niagara River.

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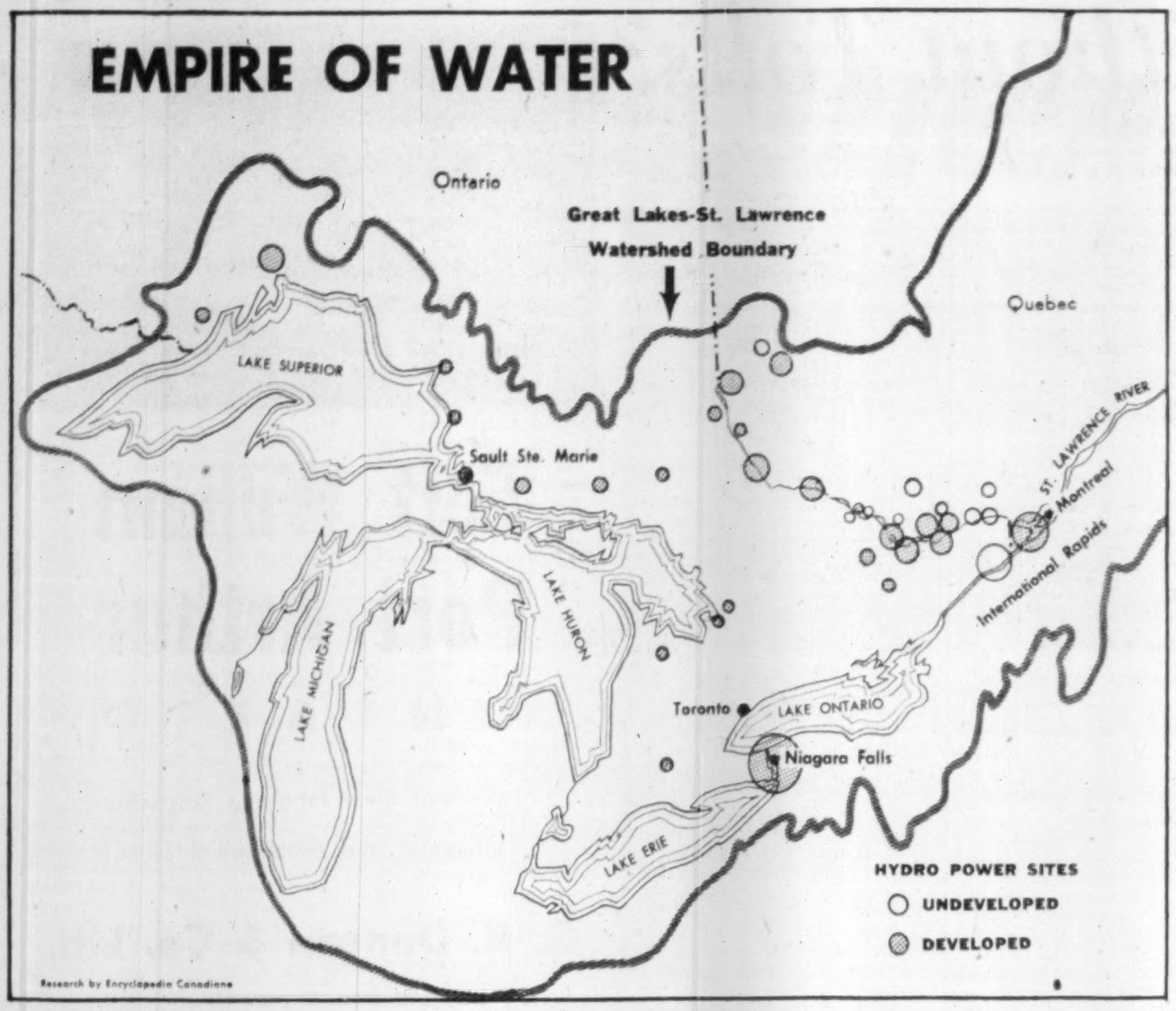


Water System

'Tapping' a Drainage Empire

When the 1,640,000-kw Canadian-U. S. St. Lawrence Power Project comes into partial operation next summer, it will tap one of the mightiest water systems in the world for its prime energy source.

This will be the Great Lakes-St. Lawrence River system, already the continent's shipping heart.

Its area is vast. The water flowing past Cornwall, Ont. is part of a 300,000 sq. mile drainage area which stretches out to west of Duluth at the western end of Lake Superior.

In the south the drainage area takes in Chicago, and in the north, Lake Nipigon north of Fort William and Port Arthur.

Flow of water in the St. Lawrence River below Lake Ontario is an imagination-staggering 237,000 cu. ft. per sec.

This tremendous power potential owes its existence to the great Canadian Shield, as do other, less important drainage basins in this nation.

Like these others, its system is new and complex, in geological terms; the hard pre-Cambrian rock, mostly granite and gneiss, has resisted cutting and sloping riverbeds are few.

Thus, sudden falls and rapids where rivers spill wildly in white flumes provide handy power sources.

The rivers of the Shield carry water off easily to the St. Lawrence River. This is because the Shield rocks are relatively impervious to moisture.

Lakes Truly 'Great'

Lake	Elevation above Sea-Level ft.	Length mi.	Breadth mi.	Depth ft.	Area sq. mi.	Canadian Area sq. mi.
Superior	602.23	383	160	1,302	31,820	11,200
Michigan (U.S.)*	580.77	321	118	923	22,400	...
Huron	580.77	247	101	750	23,010	13,675
St. Clair	575.30	26	24	23	460	240
Erie	572.40	241	57	210	9,940	5,094
Ontario	245.88	193	53	774	7,540	3,727

*Canada Year Book, 1956

And not much water is lost except in summer from the Great Lakes.

Rain Helps

Rain, too, adds to the power potential. Though the northern areas near Hudson Bay get only 10 in. or less, southern Ontario gets up to 40 in. and Montreal to 60 in.

And with run-off small (from .5 to 2 cfs per sq. mile of drainage area), the discharge rates of streams are steady.

Few hydro developments, therefore, have high heads like the two Sir Adam Beck plants at Niagara.

Most have low, are based on tremendous, steady discharges of water over short drops from about 20 to 100 ft. (The St. Lawrence River's ratio of peak to minimum discharge is less than 2 to 1, compared with the Columbia River's 33 to 1.)

But the desire to utilize the Great Lakes-St. Lawrence River system is subject to three main considerations: the needs of shipping, the wish to preserve scenic beauty at places such as Niagara Falls, and the U. S. desire to use extra water for sewage disposal and pollution tests at Chicago.

Shipping. Since before the day when Jacques Cartier sailed up to what is now Montreal, the Great Lakes-St. Lawrence system has been vital to national transport.

Today, vast quantities of bulk products (wheat and iron ore) are moving over the water which once carried small articles of trade (fur and gun powder).

To keep the system navigable, there must be unobstructed waterways and an adequate level of water. And this has been the prime purpose of legislation, both federal and international, even in the modern era when hydro-electric power developments have become almost as important as shipping.

Indeed, shipping still comes first. Legislation such as the Navigable Waters Act of 1952 requires projects on navigable waters to be subject to the approval of the governor-in-council.

And the Boundary Waters Treaty of 1909 gives navigation first place over power.

Aid Navigation

But power developments on a river system can actually aid navigation. Harnessing of the water for power can often mean harnessing the water for navigation as in Beauharnois development where the power canal will be used by ships.

This dual use of water is evident in the present St. Lawrence River project. The cost of digging a 27-ft. channel for shipping would be prohibitive, but such a channel is being provided by ponding needed for power.

If you put scenery above utility in the case of a river, you will limit the use of that river for power purposes at least. This has been the case at Niagara Falls.

In the negotiation of the 1909 Boundary Waters Treaty, limits were set on diversions of water for power purposes of 36,000 cfs on the Canadian side and 20,000 cfs on the U. S.

Increased demand for power on both sides of the river, i.e. in Canada and the U. S., brought demands the limits be raised.

An investigation was held by the Special International Niagara Board in 1926.

This resulted in a Niagara Convention and Protocol signed in 1929 but not ratified in the U. S. Senate.

The depression eased the power-shortage problem.

In 1938, Canada suggested an agreement on diversion of water from the Hudson Bay drainage basin into the Great Lakes-St. Lawrence basin through Ontario Hydro's Long Lac-Ogoki scheme but was put off by the U. S. until World War II when a temporary agreement was effected.

Then, the Niagara Diversion Treaty was agreed on and ratified in 1950. The terms: Canada got another 5,000 cfs.

Equal Use

Finally, a minimum flow was set with excess water to be used equally by Canada and the U. S.

The Boundary Waters Treaty gave precedence over all other uses to cities wanting to use water for domestic and sanitary purposes.

It is here Canada and the U. S. have clashed (**FP**, July 27, July 18, April 27, Feb. 9) principally over the diversion of water from the Great Lakes system into the Mississippi River to dilute sewage.

At present, about 3,100 cfs is being diverted and the U. S. wants another 1,000 cfs for experimental purposes—to see whether pollution can be cut.

Canada's big objection has been that any further lowering of the water in the Great Lakes through diversion will work more hardship on shipping and power production.

Here are the levels of water at present:

—Lake Superior is 602 ft. above sea level;

—The St. Mary's River carries the water (77,000 cfs) 63 miles to Lake Huron, downhill 22 ft.;

—There's a gradual decline from the 580 ft. above sea level height of Lake Michigan and Lake Huron to 572 ft. at Lake Erie;

—The huge volume of water (202,000 cfs) crashes over Niagara Falls and plunges down 162 ft., and a total of 326 ft. to Lake Ontario at a height of 246 ft. above sea level;

—Below Prescott, 68 miles east of Lake Ontario, the St. Lawrence River drops 92 ft. in 47 miles between Galops and Long Sault;

—Quiet Lake St. Francis (151 ft. above sea level) runs 26 miles to the Soulanges rapids;

—Water then drops another 84 ft. in 18 miles to Lake St. Louis (67 ft. above sea level);

—Finally, below Lake St. Louis, there's another drop of 47 ft. in 13 miles through the Lachine rapids to tidewater at Montreal (about 20 ft. above sea level).

'Mr. Seaway'

Boss Gavsie Likes Big Jobs

The president of the St. Lawrence Seaway Authority is a soft-spoken Maritimes-educated lawyer with a flair for public administration.

He's Charles Gavsie, born 50 years ago in the U. S. of Canadian parents, who succeeded Lionel Chevrier this spring.

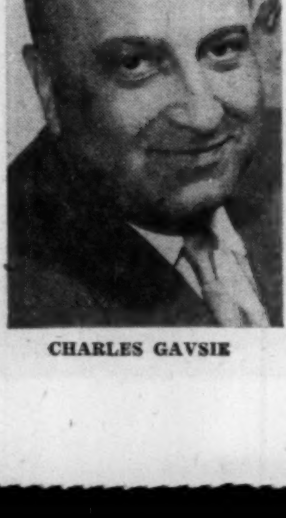
Gavsie isn't really well known—as a public figure; but for the last 15 years he's been quietly knocking off "big" government jobs like ninepins.

He was educated in public schools at Sydney, N.S., and graduated, second in his class, in an honors course in arts and law at Dalhousie University, Halifax. He followed this up with a graduate degree at Harvard University Law School.

Gavsie's high academic standing got him a job—at 24—with a crack Montreal firm of corporation lawyers, **Weinfield and Rudenko.** For 10 years he worked in general corporation and business law, before moving to Ottawa in 1941 as a solicitor in the Department of Munitions and Supply.

At that time DMS was gear-

(Continued on page 42)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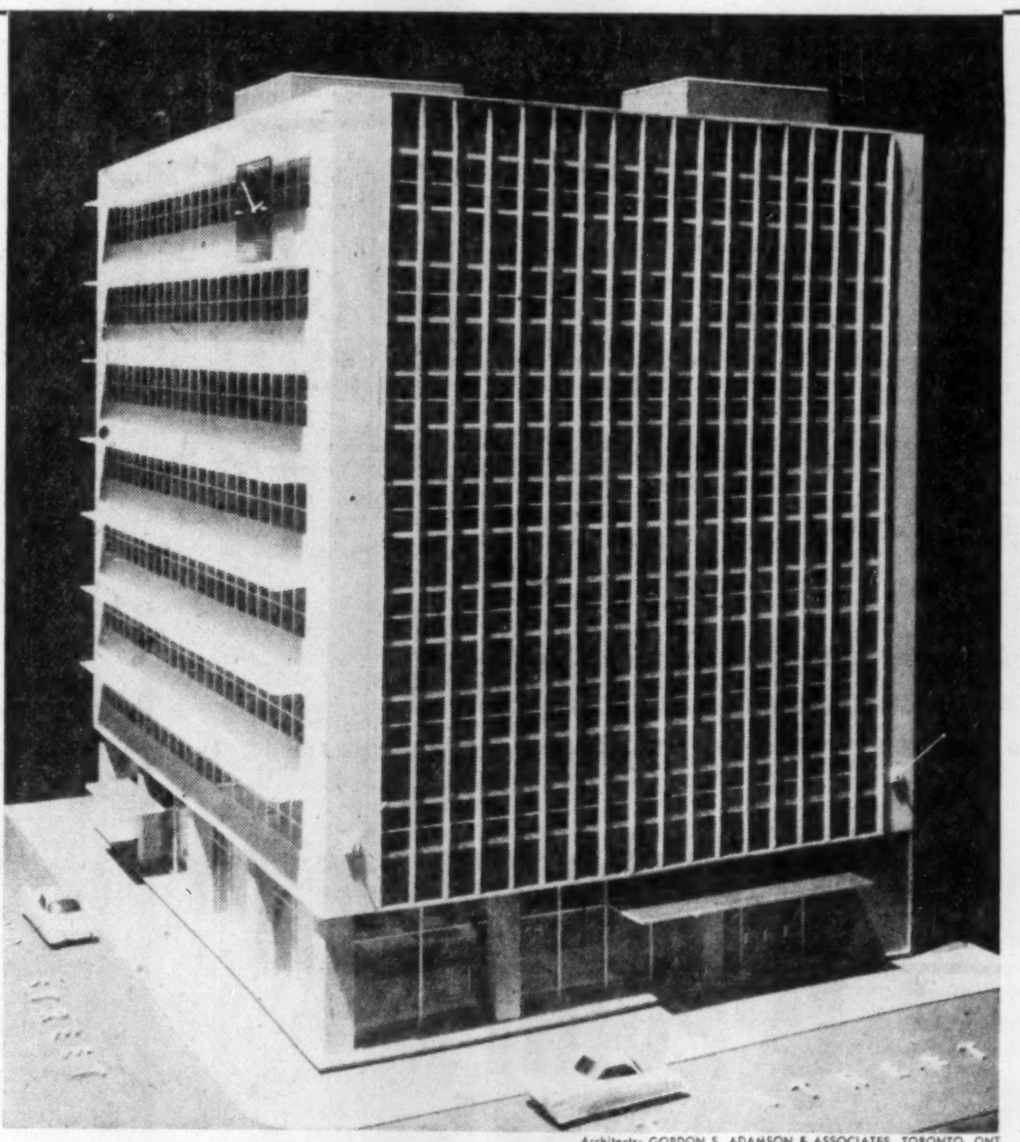
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Could We Run Seaway Without Tolls?

By ERIC AXELSON
Editor Canadian Shipping
(Maclean-Hunter)

Will Seaway tolls kill its beneficial effects?

How can "discrimination" be avoided?

What's the case for a no-tolls policy?

Those are among the questions which currently occupy the minds of both Canadian and U.S. Seaway authorities, as well as shipping and trade interests in many countries.

The answers may well decide whether the new waterway will become a boon to our national economy—or a half-billion-dollar monument to a dream.

Undoubtedly the immense navigation-and-power project has all the basic elements needed to exert a tremendous influence on the future prosperity on vast areas of both Canada and the United States.

So far, however, the only certainty in that respect is offered by development of new hydro-power sources.

The navigation portion of the Seaway, on the other hand, could easily become the most expensive disappointment in modern Canadian history.

It isn't necessarily so, of course, and this article is meant only to point out the obvious dangers in assessing its value.

A good many vital factors in that respect have until recently received scant attention from most of those who have attempted prophecies. Only now is it becoming clear that the headaches are of a nature that require more than a simple pill to cure.

This article is compiled from many sources: official figures issued by Dominion Bureau of Statistics; research by private interests now using the canals to be included in the finished Seaway; interviews and statements of opinion collected from groups and individuals directly concerned with the subject.

Toll Problems

Tolls have been under consideration for a long time. The Toll Committee has investigated the systems used elsewhere, at Panama, Suez, Kiel.

The only thing it has found with any degree of certainty is that no other such system is applicable to the St. Lawrence Seaway. It will be necessary to create an entirely new toll policy, based on the peculiar characteristics which make the Seaway different from all other waterways.

Major difficulty stems from the condition imposed by U.S. Congress that capital expenditures on the project must be repaid in 50 years, plus interest. This is a condition never contemplated by Canadian Seaway planners; chances are that it was agreed to as a concession to the strong anti-Seaway lobby in the U.S. and without too close a look at the consequences, just to get on with the job.

Now, those consequences are making themselves felt and may become an even hotter political issue than was the Seaway itself.

It has been reliably estimated that in order to fulfill the recapture stipulation, the Seaway authorities must collect an annual revenue from tolls of some $28 million. Coupled with another estimate of total cargo volume—which is dealt with below—of approximately 28 million tons a year, that means an average toll of $1 a ton.

However, solving the problem isn't quite that simple.

Preferential List

Agricultural and mineral products — all bulk cargoes — must be given preferential treatment in any tariffs set, also by law. Such bulk cargoes will certainly constitute no less than 70% of annual traffic, probably much more.

The question of tolls is the most contentious one now troubling Seaway officials.

Two toll committees, one Canadian, one U. S., have been hearing submissions for months. Decisions of the committees will have a profound effect on the Seaway's future.

Eric Axelson, editor, Canadian Shipping, a Maclean-Hunter publication, believes there's a danger that tolls and other difficulties may strangle Seaway shipping.

This is his analysis of the thorny problems now facing the Canadian committee.

Both iron ore, coal and grain are in the preferred class and all of them can only absorb a minimal extra charge if the Seaway is to benefit them.

Just what the maximum acceptable rate is has already been submitted to the Toll Committee as far as the ore is concerned.

Although not definitely known, there is every indication that it is no higher than 50c a ton. And there is no reason to believe that either grain or coal, especially the latter, could stand a higher figure than the ore.

It is a fairly simple arithmetical operation to establish, on that basis, that charges for general freight and nonpreferred bulk cargoes would have to start at about $3 a ton.

Perhaps that figure does not seem out of the way. It wouldn't be, if the Seaway were offering an entirely new, cheaper means of transportation than what is already available. But it isn't, as far as domestic trade is concerned.

For many years, large quantities of all sorts of freight have been carried free — as far as tolls are concerned — up and down the St. Lawrence River and the Welland Canal; and with only a nominal charge for canal transits on the vessels.

Any toll, therefore, however small, will add exactly that much to the cost of domestic products between all points from the Lakehead to Montreal and below. And with respect to some items, even the preferred ones, the extra cost could prove ruinous.

In 1956, the steel manufacturers in Hamilton had delivered to their plants some 3 million tons of ore, all coming through the Welland Canal which will be part of the Seaway and thus also charging tolls.

In the same year, close to five million tons of coal and coke was delivered in Hamilton and Toronto for various users, the largest, of course, Ontario Hydro.

All that — and it was approximately half of the total volume passing through the Welland Canal — was subject to no charges whatsoever.

The problem facing the Toll Committee, under present legislation, is where to find the toll revenue needed to make up the annual requirements without making the use of the Seaway uneconomical. At this point, yet another factor enters the picture.

Foreign Trade

It has been shown that any kind of toll will hit domestic traffic in a way which most observers regard as highly unfair. What about foreign trade?

There is no doubt that many distinctions will have to be made in a Seaway toll system with regard to freight coming from or destined to overseas ports.

It is not only a matter of cargo type although there are numerous kinds of freight which could afford toll rates of perhaps as much as $12-15 a ton and still come out ahead of any other means of transportation.

It has to be remembered that much overseas freight is laid down in Montreal now which normally would be carried in larger ships through the Seaway to such places as Toronto and Hamilton. If shippers find tolls excessive, that extra-distance shipping may never develop.

On the other hand, importers and exporters in the U. S. Midwest (Chicago, Duluth, Milwaukee, etc.) could well accept quite high toll rates on water transportation; deliveries would still be cheaper than by using an Atlantic seaboard port plus rail.

It would seem eminently fair, then, to set various tariffs depending on type and origin of cargoes, coupled with distances to go. But there isn't any doubt that such a policy would meet with loud cries of "discrimination."

In the end it may have to be decided which "discriminations" are the easiest to cope with. Flat toll rates without consideration of the just-mentioned factors are clearly not practical.

A Popular Solution

So far there has been practically no public interest in Seaway toll problems. Although feverish activity is taking place behind the scenes.

Informed sources say that no definite solution has been suggested although one popular (with the Toll Committee) plan is said to be this:

Let's set up a complete toll system, with fixed charges in certain amounts. Then, let's

(Continued on page 46)

Commerce on the Seaway

ESTIMATES OF U. S.-CANADIAN COMMERCE ON COMPLETED SEAWAY

('000's Short Tons)

Commodity	Average for 1950-54	St. Lawrence Seaway Development Corp. 1959	St. Lawrence Seaway Development Corp. 1965	Canadian Dept. of Trade and Commerce	Great Lakes St. Lawrence Assoc.	U. S. Dept. of Commerce Min.	U. S. Dept. of Commerce Max.
Coal and Coke	1,646	3,700	....	4,200	6,000	4,000	4,000
General Cargo	1,362	6,400	....	9,876	5,700	11,038	11,038
Grain	3,481	12,100	....	8,200	10,000	6,500	11,500
Iron Ore	216	10,500	....	20,000	20,000	30,000	37,500
Nonferrous Ore	77	800	....	....	1,000	240	240
Petroleum & Prods.	1,547	2,300	....	1,091	2,000	6,000	20,000
Wood Pulp & Pulpwood	550	700	....	1,165	1,000	....	....
Total	8,879	36,500	52,000	44,532*	45,700	57,778	84,278

*This estimate has been revised downward to 31 million tons; components are reduced in proportion.

(Bureau of Business Research, Indiana University)

'Mr. Seaway'

Boss Gavsie Likes Big Jobs

(CONTINUED FROM P. 41)

ing itself for the immense job of providing Canada—suddenly—with the arms to fight an all-out war and Gavsie found his light didn't stay under a bushel for long.

He became assistant general counsel within a year, then general counsel; and, toward the war's end, took the same post in Department of Reconstruction and Supply.

Assistant Deputy

Three years later, he was part of a "team" which moved from DRS to Department of National Revenue. The other member was V. W. T. Scully, now president, **Steel Co. of Canada.** At the time Gavsie moved into the post of assistant deputy minister and Scully, who had been deputy in DRS, took the same job at DNR.

The job the two men had to tackle was the clearing up of a big accumulation of assessments and the working out of new income tax legislation. Gavsie was involved in setting up DNR's present administrative procedures and in devising the Act which came into effect in 1949.

Scully moved to Stelco in 1951 and Gavsie took over the deputy's job. Three years after that, another big job loomed up, the vice-presidency of the St. Lawrence Seaway Authority, which Gavsie took over on July 1, 1954. When Lionel Chevrier retired as president, Gavsie became acting president, moving shortly into the president's spot.

He isn't a man who brags about his accomplishments.

How's the Seaway coming along? What do you feel has been your contribution?

Gavsie's reply is this careful, low-key sentence:

"The sum total of work yet to be done on the Seaway is substantial and we're fortunate in having such a competent staff. I'm reasonably satisfied that we'll meet our schedule."

Hobbies? His work and the Ottawa Community Chest. In 1955 he was chairman of the Chest's public service division and has been connected with other such Ottawa groups.

In 1935, he married the former Sara Halparin of Winnipeg. They have two sons, David, 16, and Edward, 6. David, now in his last year at an Ottawa high school, is a shot-putter of note.

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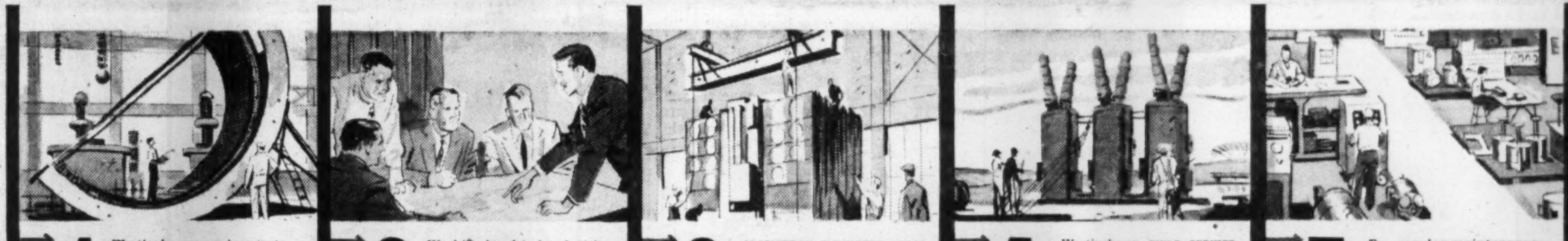

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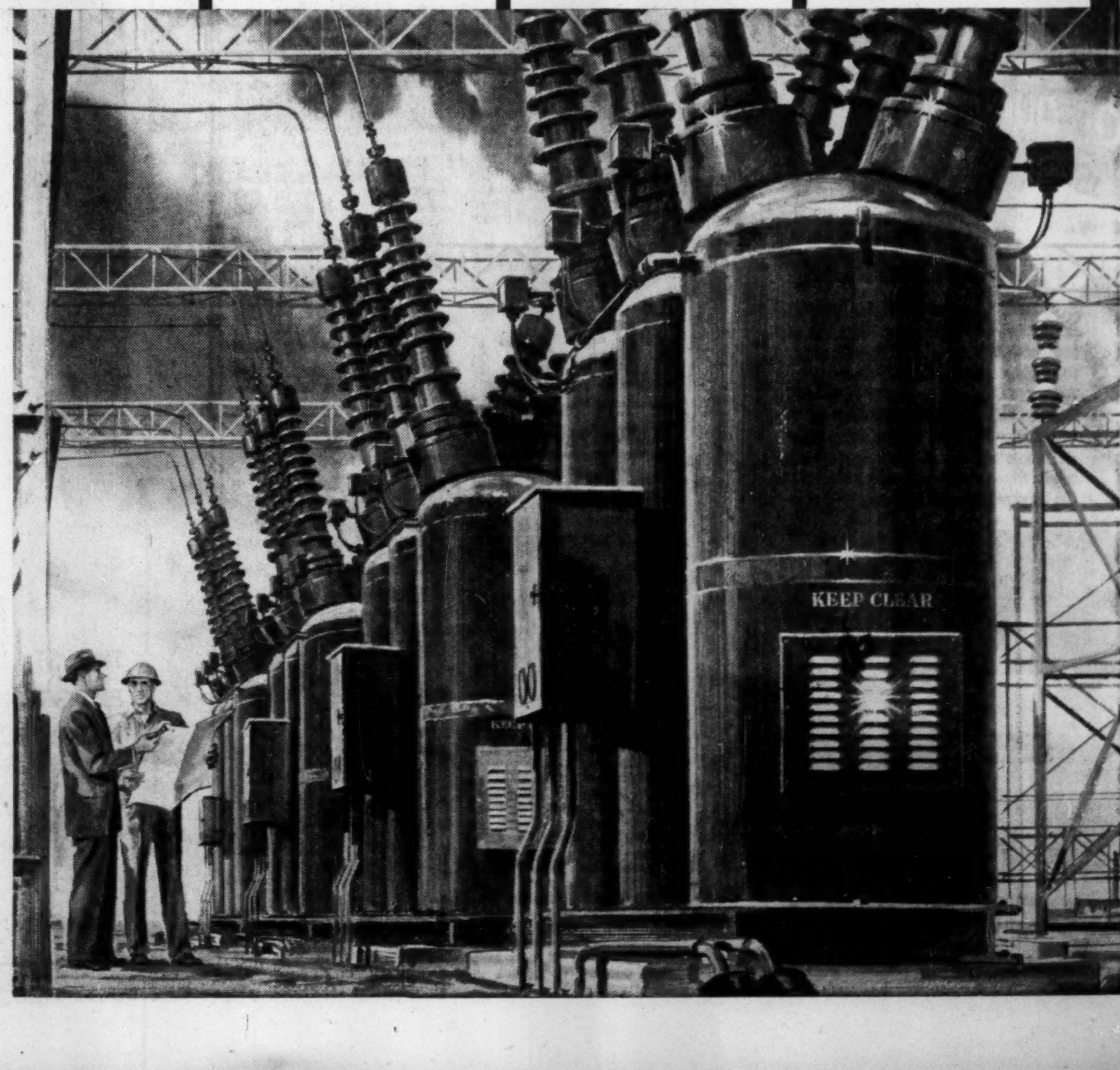

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New Era Opens in New Towns

For 6,500 people living along the north shore of the St. Lawrence, the Seaway power project means the ending of one way of life and the beginning of another.

These people must abandon—in most cases, have abandoned—seven villages and part of an eighth, all located on 20,000 acres of rich Ontario farmland, first settled by United Empire Loyalists fleeing the American Revolution.

Sections of the north shore of the St. Lawrence, from near Cornwall to Iroquois, Ont., will form part of the bed of a 25-mile-long "Seaway Lake," which will be the headpond for the 2.2 million hp. power development. Turbines will start spinning next summer.

On the U.S. side, 18,000 acres will be flooded; but it's much more sparsely settled than the Canadian; and no major task of relocation is involved.

The Seaway power project is being split between Ontario Hydro and the New York State Power Authority; the full responsibility for the immensely difficult social task of moving and relocating the 6,500 inhabitants has been allotted to Hydro.

Hydro spent years in working out plans for the relocation and made them public in the summer of 1954. Because it involved, in many cases, depriving people of properties which had been in their families for four generations, objections were many.

After about a year of controversy, Hydro convinced (substantially) everyone that it was offering them "a square deal." House-moving to new communities started in the summer of 1955.

Three New Communities

Now three entirely new communities are in existence. One of the villages has a new suburb. Four hundred and ten houses have been moved. New stores, apartment buildings and schools have been erected. The relocation is about 70% complete, will be 95% complete by year end.

Here's the story, in detail:

The villages which will be completely flooded by "Seaway Lake" are Iroquois, Aultsville, Farran's Point, Wales, Moulinette and Mille Roches. Morrisburg will be partially flooded.

The new communities are: a "New Iroquois," 1.5 miles from the old site, Ingleside, a new community, 15 miles west of Cornwall, which will house residents of the old Dickinson's Landing, Wales, Farran's Point and Aultsville; Longue Sault, eight miles west of Cornwall, which will house the residents of the old Mille Roches and Moulinette.

Seaway Lake will cover the waterfront business section and some houses at Morrisburg. A new subdivision to house the flooded portion is being built east of the present builtup area.

The New Iroquois operation was begun first by Hydro. Giant **Harteshorne** movers started picking up houses in the summer of 1955. By the summer of 1956, the entire residential district was on the new location; 150 houses had been moved and about 100 dwelling units in the old village torn down.

Houses were planked onto new foundations provided by Hydro; new porches and garages replaced old. Modern furnaces were provided at costs far below prices the householder would pay for a new heating plant. Houses were painted and Hydro provided a complete set of municipal services, water, sewer and electricity.

New Streets

By the end of 1956, paving of five miles of new streets was completed and two new schools were under construction for opening this fall.

A new shopping centre—consisting of 24 stores and three offices—was opened at New Iroquois two months ago; it provides accommodation for all merchants from the former community's business section. It's of steel frame construction, with an exterior of buff-colored brick, and store fronts of aluminum and glass.

Next operation was creation of the new town of Ingleside. House-moving began last fall. Sixty-six houses have been moved to their new location; 40 are still to be moved; 60 new houses are now under construction in the new municipality.

Also under construction are three churches (one almost complete), three schools and a shopping centre to accommodate 11 stores. Road-building hasn't got under way; it will be delayed until house-moving is complete.

Community Spirit

Says W. G. Coventry, industrial commissioner of nearby Cornwall, who toured the area last week:

"At first, many Ingleside people were unhappy at being uprooted from homes in which they had lived so long.

"Now they've settled into new houses and now feel there's much to be said for the amenities with which they've been provided. A definite community spirit is developing.

"For instance, at the entrance to Ingleside I saw a sign which read '58 days without an accident.' Ingleside people are always thinking of themselves as a community.

"They've been imaginative in choosing names for their streets; they have a Santa Cruz Street and a Maple Leaf Avenue." (The Marquis of Santa Cruz was slated to command the Spanish Armada against England in 1488.)

Like the New Iroquois townsite, Ingleside is some 200 acres in area. When completed, it will have four miles of streets.

At Longue Sault, operations are not so far advanced as at Ingleside. House-moving began last fall; 128 have been moved and two are still to come. Fifty new ones have been completed and 30 to 40 are under construction.

Also under construction are two new schools and four churches. A branch of the **Bank of Montreal** has begun operations, as has a florist. A hotel and a motel are going up.

"People in Longue Sault appear to be more politically minded than they are in Ingleside," says Mr. Coventry. "However, they're non-partisan — at least on the outside; they have both a Frost Drive and a St. Laurent Ave."

Modern Services

At all the new towns, Hydro is providing a modern electrical distribution system, new street lights, paved roads, concrete sidewalks, water, sewage disposal plants, storm drains and sewers.

A property owner whose house is either purchased or moved is paid an allowance for inconvenience, disturbance, and the necessity for acquiring the property. Building lots in a new site are made available if the owner who sells his property wishes to remain in the community.

Hydro supplies some special services to help overcome the inconvenience caused by the move. "Stop over" houses are available to residents while their homes are in transit to the new site. These temporary homes are fully equipped and families using them need bring only personal items for what usually amounts to just an overnight stay.

Transportation is arranged for necessary shopping trips to stores in the old area while shopping centres in new areas

(Continued on page 44)

Modern new towns dot Seaway Valley, towns like Long Sault . . .

And the new Iroquois . . . where crops grew a few years ago.

GIANT HOUSE-MOVING machines shifted whole villages to new location. Many of the homes in the new towns are newly built, however.

Narcisse Contin

'Father of Seaway' Dreamed Too Soon

A brisk wind from the west will carry the faint smell of sea-going ships across Lake Huron to the southwest Ontario coast when the Seaway opens.

The invigorating scent will permeate the air over the ghost town remains of St. Joseph — that was once to be Seaway City. Inland it will drift over the wind-blown grave of Narcisse Contin who has more claim than most to be called father of the St. Lawrence Seaway.

If Contin, who died in 1949 at 69, could see the work now under way he would be a happy man. His tragedy, as with so many dreamers, was that he was born 50 years too soon.

He was a promoter in the classical pattern. He hustled and hurried his colleagues along the way towards the Seaway realization. He created a town, as he later admitted, simply to draw attention to the project.

Contin was born in French Settlement on the shore of Lake Huron. It was, as its name implies, a settlement made up of Quebec families. The Contins were boat builders with tradition of the craft stretching back through generations.

But the young Contin became a cattle buyer and trader. Impatient with youth he was in business for himself and married at 17.

He then moved to Buffalo. An enormous man standing well over 6 ft. and weighing some 240 lbs., Contin's early life was varied.

He was a sparring partner for John L. Sullivan; patented a new design for a gas burner; patented and marketed a new furniture polish.

Ready Success

Success came readily to Narcisse Contin. But possibly his nautical heritage, or just good business sense, more and more directed his mind towards the dream of a Seaway.

He had a plan. It called for a 43-mile canal bisecting southwest Ontario between St. Joseph on Lake Huron and Port Talbot on Lake Erie. A channel was then to curve 85 miles to Moulton Bay near Port Colborne.

A 19-mile canal would then cut from there to Jordan Harbor in Lake Ontario.

Contin was prepared to use natural waterways from there up to Prescott. There he envisaged a network of canals.

One closely follows today's Seaway route as far as Valleyfield where it was to break off and meet the existing Champlain waterway at the top of Lake Champlain. This was to be known as the Beauharnois Canal.

Three more canals were to zig-zag between the St. Lawrence and Ottawa Rivers.

Initial response to Contin's dream was unenthusiastic. He realized that something dramatic had to be done to focus public attention. The idea that came to him was, virtually, a Seaway City.

He selected Johnson's Mills which he renamed St. Joseph. What followed is priceless Canadiana.

Contin assembled an amazing selection of industrialists and financiers, many of whom hardly knew what had hit them when the enthusiastic French Canadian came to call.

Mainstays of the local economy were an organ pipe factory, a novelty factory and a lumber mill. Not perhaps the soundest of economies, but Contin knew what he was doing.

Built Town

He set out to build the town. A reporter from the London Free Press visited the new metropolis and wrote a glowing full page account of it on September 18, 1897.

In part it read: "The large majority of towns (in Western Ontario) which spring up like a mushroom in a day, have buildings simply thrown together, and erected in the most crude state, such as Rossland and many places of a like nature. Such is not the case with St. Joseph."

It was not only the Press that was excited. Like an early Mike Todd, Contin beat the money-raising drum in Montreal and New York.

Groups of local financiers were brought in by train for the day, given a dazzling display of partly built structures and shown elaborate plans for the future, and then sent home.

Even Ottawa became impressed enough to construct a dock in order to carry the enormous trade that was bound soon to develop.

Most Canadians at the time, and certainly the residents of St. Joseph and its surrounding localities, believed the construction of a town was Contin's raison d'être.

But in fact it was always the Seaway.

He needed capital — which at that time meant Montreal and New York. So supplies for building St. Joseph were purchased almost entirely in those two centres much to the chagrin of Ontario industries.

In 1898 Contin was ready to move. He applied to Parliament for a charter to build the necessary canal. It was refused. Contin tried again in 1902, 1903 and 1904. Each time Ottawa turned it down.

This was unexpected for Contin and serious. St. Joseph was fast becoming an enormous white elephant. At the head of the Seaway, or at least the headquarters for its construction, it had real possibilities. A giant — for those parts — hotel was already under construction.

Familiar Face

Contin bombarded members of parliament, business leaders, shippers. His arguments, now familiar and well accepted, had little reception.

As a man Contin continually impressed. He cornered Charles Schwab of Bethlehem Steel and tried to sell him on the advantages of the Seaway for ore traffic. Schwab was interested.

But not so much in the plan as the planner. He offered Contin $100,000 a year to work for him. Contin refused it and returned to the battle.

By 1914 it at last looked like success. **The Great Lakes & Atlantic Canal & Power Co.** was incorporated. It set out to "create a public demand for a speedy navigable waterway."

However World War I put a stop to all such plans.

After the armistice Contin renewed the struggle.

But now he was running into less indifference, more active hostility. In 1921 he considered he had the rights to deflect water from Lake St. Francis to Lake St. Louis running past Beauharnois — a vital part of his scheme.

But other interests were supporting the Beauharnois Power project. It bogged down in expensive and lengthy lawsuits. Finally in 1929 the courts ruled for **Beauharnois Power Corp.**

In fact that marked the end of Contin's Seaway dream, although he refused to admit it.

He travelled, he argued. His correspondence shows year after year urgent cables and notes to and from New York, Montreal, Toronto and Detroit.

As is often the case financial interests were now listening but it was getting late for Contin himself.

He began to concentrate more in his later years on another elaborate plan for building an electric railway network between the towns of southwestern Ontario.

But inevitably his non-stop Seaway propaganda took root. Many of today's accepted ideas stem from his speeches and writings on the subject.

Contin became severely ill while in New York and died in St. Joseph January 1940.

Now St. Joseph is little more than a spot on the map, Contin, a promoter with nothing left to remember him by except dreams.

Progress

Jobs on Schedule

(CONTINUED FROM P. 39)

basins, and some 18 miles of channel are being constructed in the dry.

Major modification is under way at four main bridges which will substantially increase the facilities for road traffic between the Island of Montreal and the south shore of the St. Lawrence.

Here also some railroad diversion is under way and the relocation of telephone and other communication lines as well as the construction of a collector sewer and several modern water intakes for the south shore municipalities.

Near Completion

In this section two major channel excavation contracts have been substantially completed — contract No. 1 for 7,600 ft. near St. Lambert and contract No. 12 for 4,200 ft. at Cote Ste. Catherine.

The St. Lambert lock is rapidly taking shape just upstream of Victoria Bridge. The Cote Ste. Catherine lock which will by-pass the Lachine Rapids is 55% complete.

The raising of the Jacques Cartier Bridge, to provide for 120 ft. clearance over the Seaway channel is being carried out night and day under the continuing live load of the motor traffic. The whole southern part of the bridge must be raised some 50 ft.

At the south approach to the Honore Mercier Bridge the construction of the concrete pillars to carry the future motor traffic 120 ft. above the Seaway channel is progressing rapidly.

Soulanges Section. The work already completed and still to be done in the Soulanges section is impressive.

Here the purpose is to link Lake St. Louis and Lake St. Francis (the latter at the same level as the water in Beauharnois power channel) by means of two locks with a lift together of 84 ft., and a short joining channel.

Here, also, must be constructed and installed three movable spans in the three existing bridges over the Beauharnois channel, between the upper Beauharnois lock and Valleyfield, at the Lake St. Francis end of the channel.

The **New York Central** railroad line must be relocated in three successive steps and a four-lane highway tunnel has been built underneath the Seaway channel, just upstream of the lower Beauharnois lock.

This tunnel was partially opened to traffic at the end of May.

Construction of lower and upper Beauharnois locks and their approaches, of which the total cost will be in the vicinity of $29 million is proceeding quickly. Excavation is largely completed and concreting has begun at both locks.

Lake St. Francis Section. In this section the work consists entirely of dredging and two of the three contracts are more than three-quarters completed.

Largely Completed

International Rapids Section. The set piece in the International Rapids section is the Iroquois lock and it is largely completed. It will probably be finished several months ahead of schedule, almost exactly a year from the date of first placing of concrete in the forms.

Of the five locks which the St. Lawrence Seaway Authority is building it is expected that Iroquois lock will be the first to be completed.

Dimensions of this lock, as of other Seaway locks will be: 859 ft., outside length and 768 ft. usable length between breast wall and upper gate fender; the width will be 80 ft. and the depth over sills, 30 ft.

Approaches are 27 ft. deep, the minimum depth of the Seaway channel.

Construction of the Iroquois lock requires the excavation of 4.5 million cu. yd. of rock, glacial till and over burden and the placing of over 300,000 cu. yd. of concrete, or 600,000 ton.

Also in the International section the north and south channels at Cornwall Island are being enlarged to provide proper navigation for shipping in the south channel at the same time to maintain the national distribution of the flow of the St. Lawrence waters around Cornwall Island.

Over the south channel the Authority is building the substructure of a high-level expansion bridge between Cornwall Island and the U.S.—the St. Lawrence Seaway Development Corporation of the U.S. is building the superstructure.

The Welland Canal Section. Six contracts have been awarded by the St. Lawrence Seaway Authority in the Welland Ship Canal section. The work required is to enlarge the existing canal and to provide a governing depth of 27 ft., instead of the present 25 ft., between the eight locks of this Canadian canal which will form part of the St. Lawrence Seaway.

Two contracts are completed and two others are nearing completion.

Summing up the work so far, the Authority added that some $20 million worth of equipment and machinery will be required for the operation of the locks and movable spans.

Contracts for equipment cover the following: Lock-gates of Mitre and Sector type; stiff-leg derricks; diesel generators; pumps; electrical control desks; lighting and heating fixtures and many others.

Transportation of the fabricated equipment to the worksites and installation will feature Seaway work in the months ahead.

"Inspection of the progress of the work permits us to state that, if no major catastrophe occurs, the new St. Lawrence Seaway will be ready for shipping at the opening of the navigation season of 1959," the new St. Lawrence Seaway Authority President concluded.

New Towns Opening New Era In Booming 'Seaway Valley'

(CONTINUED FROM P. 43)

are being completed. Children get transportation to and from schools in the old villages pending completion of the new schools.

The Morrisburg operation is being done in two stages. Last year 12 houses were moved to make way for a new shopping centre—now almost complete. House-moving began again this spring. Now 74 houses are in place on new locations; 17 more will be moved later this year.

At all sites, the work of grading and sodding new lots, building sidewalks and culverts, painting houses and generally "cleaning up" was and is going on concurrently with the house-moving.

Hydro has even moved the dead. One phase of the relocation project is the relocation of 18 cemeteries, most of them being combined in one new burial ground to be known as Union Cemetery. Under the guidance of cemetery experts, tomb stones and head stones of the deceased of all faiths are carefully moved and set up on the new site. Where relatives wish it, the remains as well are disinterred and transferred.

Another phase of the relocation was the moving of 40 miles of new double track on the busy **CNR** main line between Cardinal and Cornwall; the new rail artery bypasses the land to be flooded. This relocation is now virtually complete and trains are running. New highways also had to be built.

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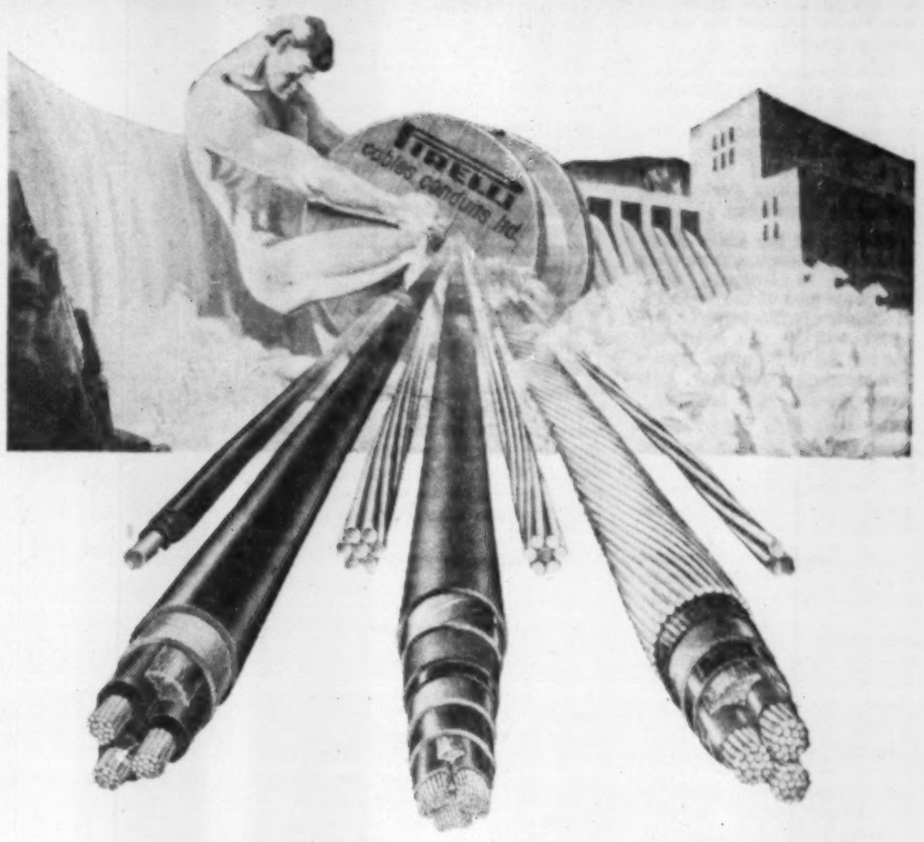

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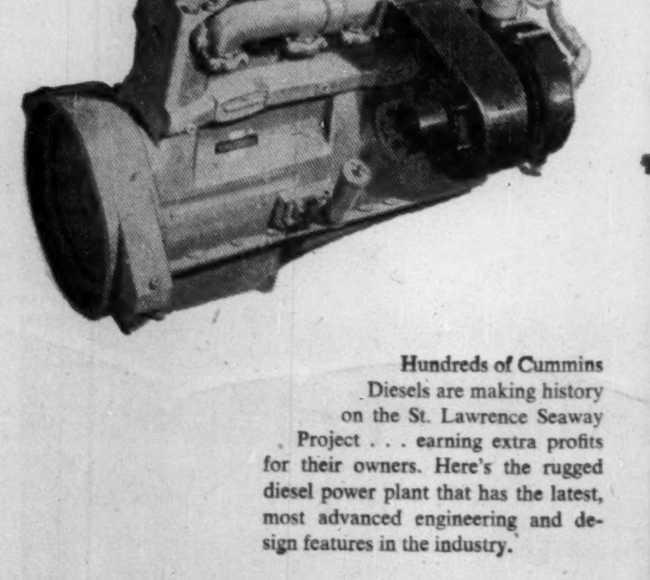

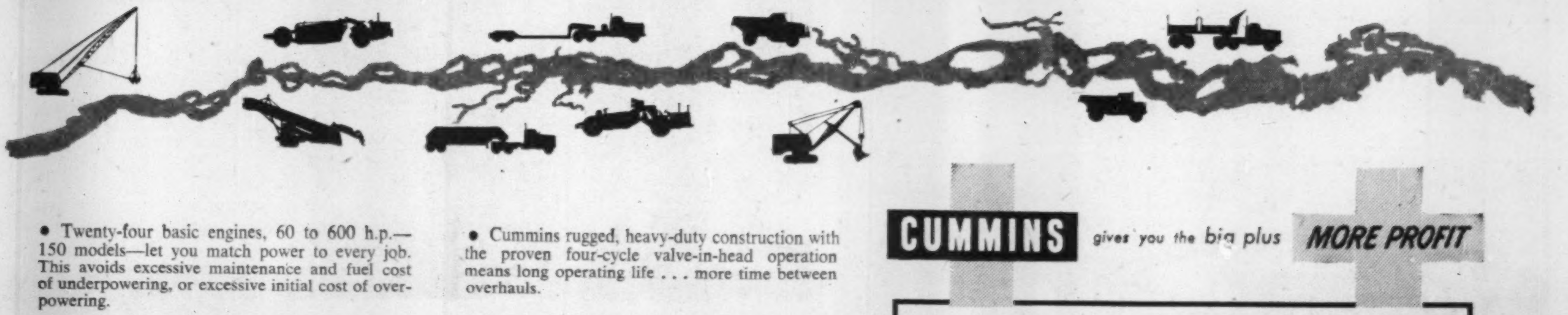

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Many Companies Behind the Progress

These firms are building Canada's part of the Seaway:

Lachine Section

JOB	CONTRACTOR	COMPLETION DATE	AMOUNT $
Downstream of Jacques Cartier Bridge, to Montreal Harbor, excavate 4,900 ft. long section, 2 million cu. yds. of material, including 500,000 cu. yds. of rock.	Miron & Frères Ltée., Montreal.	Nov. 30, 1957	1,768,900
Construction of permanent water intake for municipalities of Longueuil and Jacques Cartier.	Atlas Construction Co., Montreal.	Dec. 15, 1956	120,898
Dredging St. Lawrence River at two points in Montreal harbor — one mile below Jacques Cartier Bridge, and two miles further downstream — to link harbor with canal, and create turning basin. Some 3.2 million cu. yds. of overburden are to be dredged, and 100,000 cu. yds. of solid rock removed.	Marine Industries Ltd., Montreal.	Aug. 31, 1958	10,636,000
Construction of 3,300 ft. pipeline for water intake of municipalities of Longueuil and Jacques Cartier, to be of reinforced precast concrete pipe, supported on concrete.	Miron & Frères Ltée., Montreal.	Oct. 31, 1956	535,200
Permanent raising of Jacques Cartier Bridge and replacement of two spans to provide 120 ft. clearance for ships.	Dominion Bridge Co., Montreal.	Oct. 31, 1958	6,989,750
Enlarging Piers 1 to 11, Jacques Cartier Bridge.	Atlas Construction Co., Montreal.	Sept. 30, 1956	779,267
Excavation of 7,600 lin. ft. of Seaway channel and construction of dyke between Jacques Cartier and Victoria Bridges.	McNamara Construction Co., Peacock & McQuigge Ltd., Pigott Construction Co., all of Leaside, Ont.	June 30, 1957	2,314,500
Construction of St. Lambert Lock and approaches extending 5,000 ft., including removal of 2.4 million cu. yds. of material and placing 405,000 cu. yds. of concrete.	McNamara, Pigott & Peacock.	Aug. 31, 1958	7,399,472
Laprairie Basin, construction 20,000 lin. ft. channel and requisite dyke, of turning basin for ships, and extension of water intake for City of St. Lambert. Contract requires excavation of 2 million cu. yds. of rock, 5 million cu. yds. of common excavation.	Walsh-Canadian Construction Co., Toronto.	Dec. 15, 1957	4,213,800
Adjoining above contract, excavation of 15,500 ft. channel and construction of required dyking, excavation of 1.2 million cu. yds. of rock, 2.5 million cu. yds. of common material.	Northern Construction Co. & J. W. Stewart Ltd., Vancouver.	Aug. 31, 1958	3,279,050
Construction of Côte Ste. Catherine Lock and approaches of 10,500 lin. ft., excavation of navigation channel, construction of dykes, of turning basin downstream of the lock, of regulating works for control of water level of upper reach of canal, and formation of reservoir pool upstream of lock.	Canamont Construction Ltd. & Canit Construction Ltd., Montreal	July 31, 1958	7,107,480
Excavation of 4,200 lin. ft. of part of overland channel along south shore from westerly limit of Ste. Catherine Lock upstream. Necessary excavation includes 340,000 cu. yds. common, 630,000 cu. yds. shale, 660,000 cu. yds. limestone; 100,000 cu. yds. of rock cushion are to be laid on each side.	Miron & Frères Ltée., Montreal.	Mar., 1956	1,153,000
Continuation of above channel overland to immediately east of Honore Mercier Bridge. Excavation is 14,800 ft. long, involves 19,000 lin. ft. of dyke, 7.5 million cu. yds. of excavation, construction of cofferdams and unwatering.	Northern Construction Co. & J. W. Stewart Ltd., Vancouver.	Aug. 31, 1958	4,690,750
Supply of coarse aggregates to Côte Ste. Catherine Lock.	Miron & Frères Ltée., Montreal.		$1,113,000
Supply of above coarse aggregates to St. Lambert Lock.	Mount Royal Paving & Supplies Ltd., Montreal.		$1,009,000
Dredging Lake St. Louis channel, removing 3.8 million cu. yds. overburden and 100,000 cu. yds. of solid rock. Contract involves 10 miles of dredging from easterly end of Beauharnois Canal to just west of Caughnawaga Indian reservation.	Marine Industries Ltd., Montreal	Sept. 30, 1958	8,219,000
Supply of fine concrete aggregate for use in making concrete in Côte Ste. Catherine Lock.	Standard Lime Co., Montreal.		397,750
Handling of sand from railway siding to contractor's bin on lock site.	Canamont Construction Ltée., and Canit Construction Ltd., Montreal.		181,300
Supplying 205,000 tons of sand for cement making at St. Lambert Lock.	Standard Lime Co., Montreal.		440,750
Handling sand from railway siding to lock site.	Carriere de Trois Pistoles, Trois Pistoles, Que.		88,150
Excavation of channel and construction of dyke, from 16,000 ft. upstream to 1,000 ft. upstream of Honore Mercier Bridge, Montreal.	Miron & Frères Ltée., & Mannibec Construction Co., Montreal.	Aug. 31, 1958	4,877,700
Construction and verification of hydraulic models of Montreal Harbor and of Lachine Rapids.	Neyrpic Canada Ltd. Montreal.	Summer, 1957	197,900
Construction of building for hydraulic models at Ville LaSalle, Que.	Key Construction and Deschamps & Belanger, Montreal.	May, 1956	572,492
Installation of temporary water supply line for municipalities of Longueuil and Jacques Cartier.	A. Janin Co. Ltd., Montreal.	Completed	110,985
Excavation of channel and construction of dyke sta. 900+00 to 930+00 embankments and CPR bridge substructure.	Atlas-Winston Ltd., Montreal.	Aug., 1958	3,327,725
Collector sewer and outfalls—municipalities of Montreal South, Jacques Cartier, St. Lambert and Preville.	S. D. Miller & Sons, Montreal.	Aug., 1957	1,855,688
Supply of sluice gates for St. Lambert water intake.	Francis Hankin & Co., Montreal.	Completed	18,548
Construction and maintenance temporary approach and demolitions Honore Mercier Bridge.	Atlas Construction Co. Ltd., Montreal.	Mar., 1957	569,995
Construction of substructure Piers 14-28—Honore Mercier Bridge.	Pentagon Construction Co. Ltd., Montreal.	Sept., 1957	898,830
Substructure south of Pier 28 — Honore Mercier Bridge.	J. D. Sterling Ltd., Montreal.	Dec., 1957	1,176,680
Superstructure — Pier 14 to 29 — Honore Mercier Bridge.	Dominion Bridge Co., Montreal.	May, 1958	2,503,219
Superstructure south of Pier 29 — Honore Mercier Bridge.	Dominion Bridge Co., Montreal.	Mar., 1959	4,873,780
Superstructure — vertical lift bridges CPR at Caughnawaga.	Dominion Bridge Co., Montreal.	Apr., 1958	3,078,731
Superstructure for two vertical lift bridges over St. Lambert Lock.	Dominion Bridge Co., Montreal.	Apr., 1959	6,086,640
Construction of regulating works and roadway underpass at St. Lambert Lock.	S. D. Miller & Sons, Montreal.	Dec., 1957	923,446

(Con. on p. 51)

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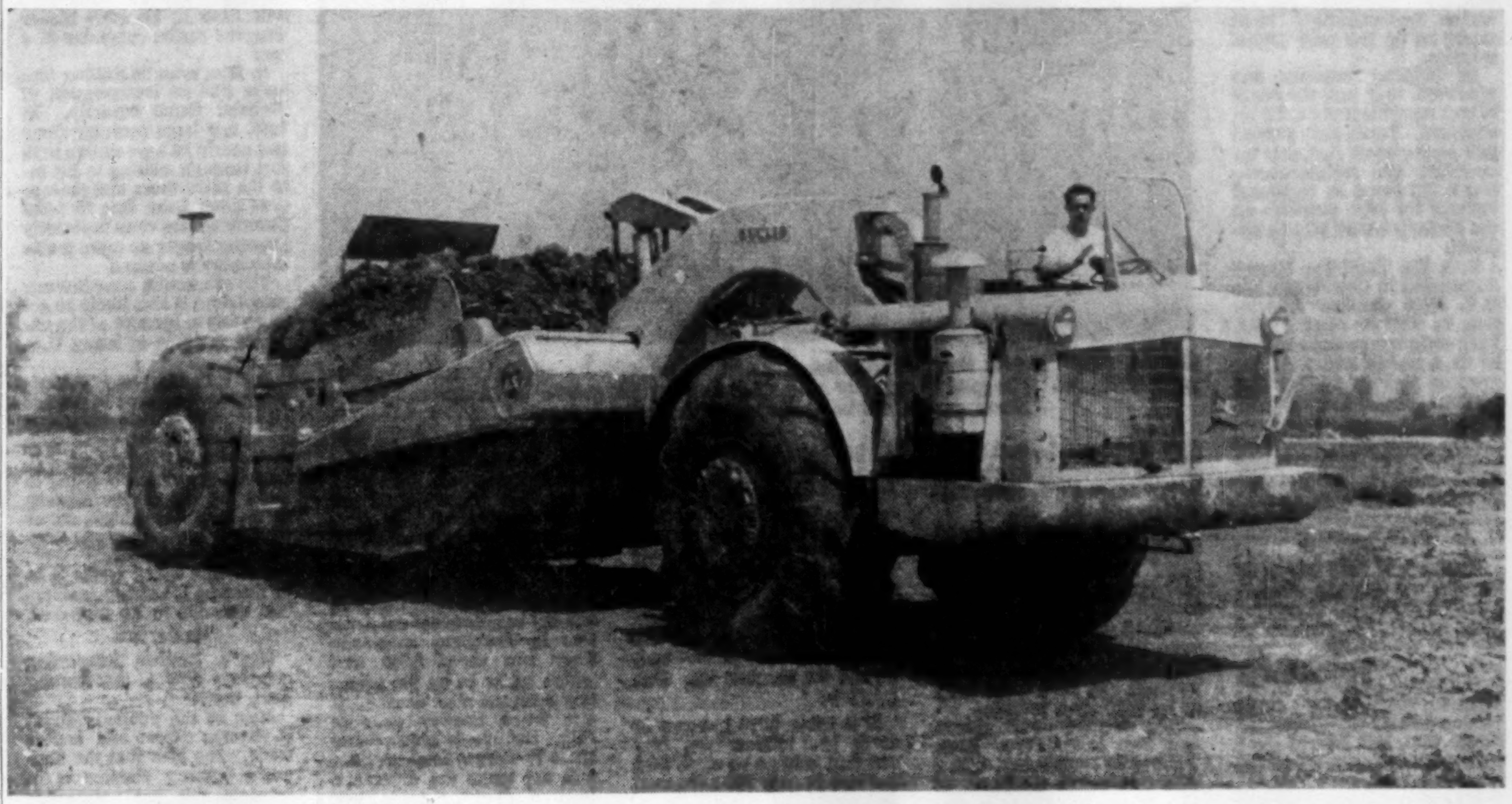
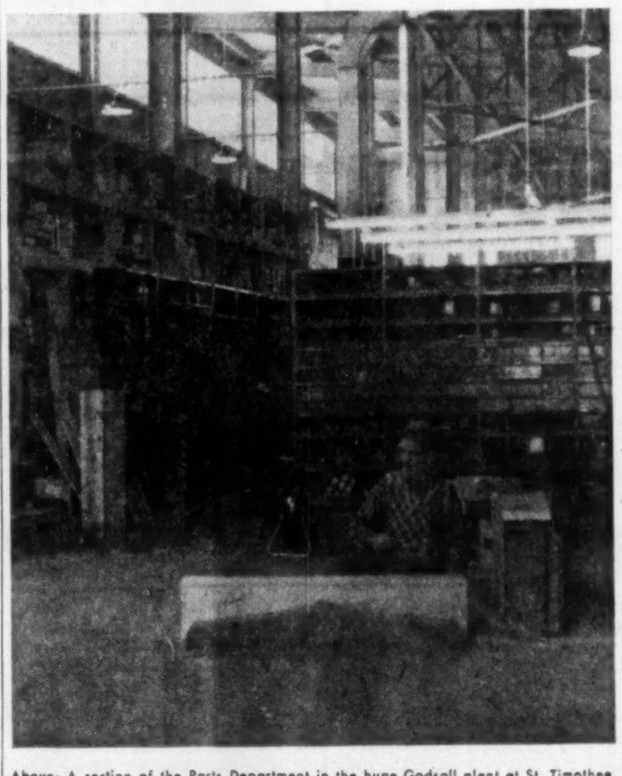
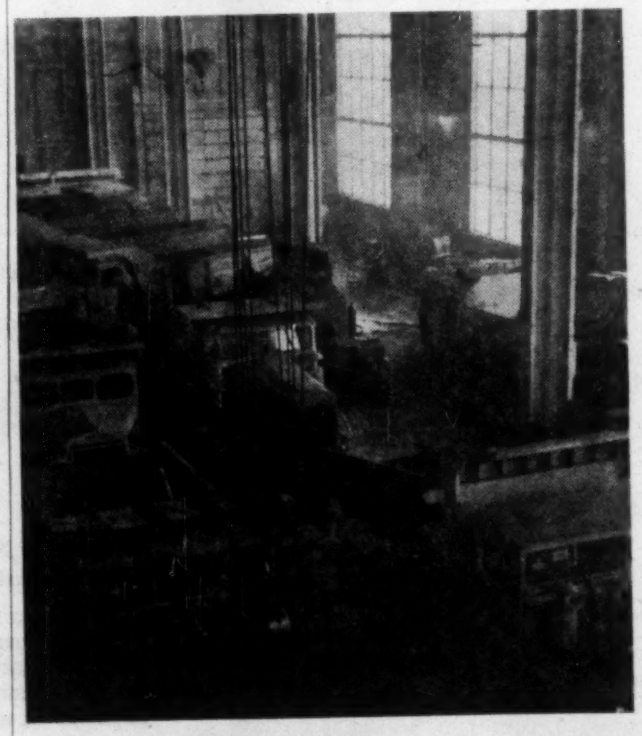


The most modern piece of Euclid equipment on Canada's biggest construction project, this twin-engine scraper is one of a fleet of Euclids working on seaway construction.



Above: A section of the Parts Department in the huge Godsall plant at St. Timothee — one of the most efficient parts departments on the continent, which assures Godsall customers of high parts availability. Below: A section of the shop showing Euclid equipment being serviced for Seaway delivery.



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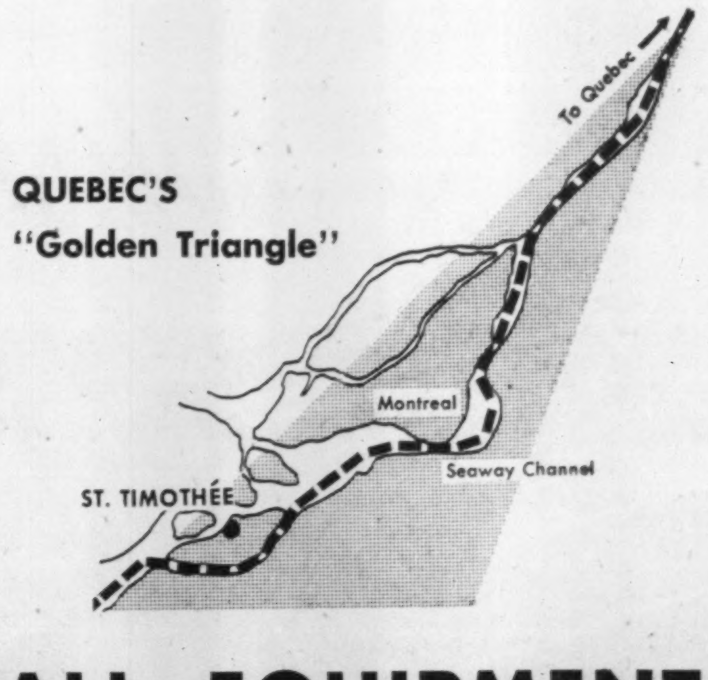

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Seaway Tolls

Could We Run Project Without Them?

(CONTINUED FROM P. 42)

apply only a relatively small percentage of those rates for a period of time (3-5 years) in which a Seaway trade pattern could be established. After that, rates could either be applied in full or, more likely, revised to fit the new picture which would have emerged.

A permanent solution would be, of course, to scrap the cost-recapture stipulation. That would require approval by the U.S. Congress which in view of the still very strong anti-Seaway sentiments in some parts of that country might prove difficult to obtain.

However, to those who contemplate increased use of water transportation, this seems to be the only logical solution.

In building railways and highways, they say, we rarely expect repayment of capital investment. Taxes, both general and on transport fuel, pay for operation and maintenance—and a toll based on registered tonnage for such purposes on the Seaway would not be opposed.

Both the Dominion Marine Association in Canada and the U.S. Lake Carriers' Association, as well as other bodies, have come out strongly in favor of a no-toll policy on the grounds that the Seaway is a national project in both countries.

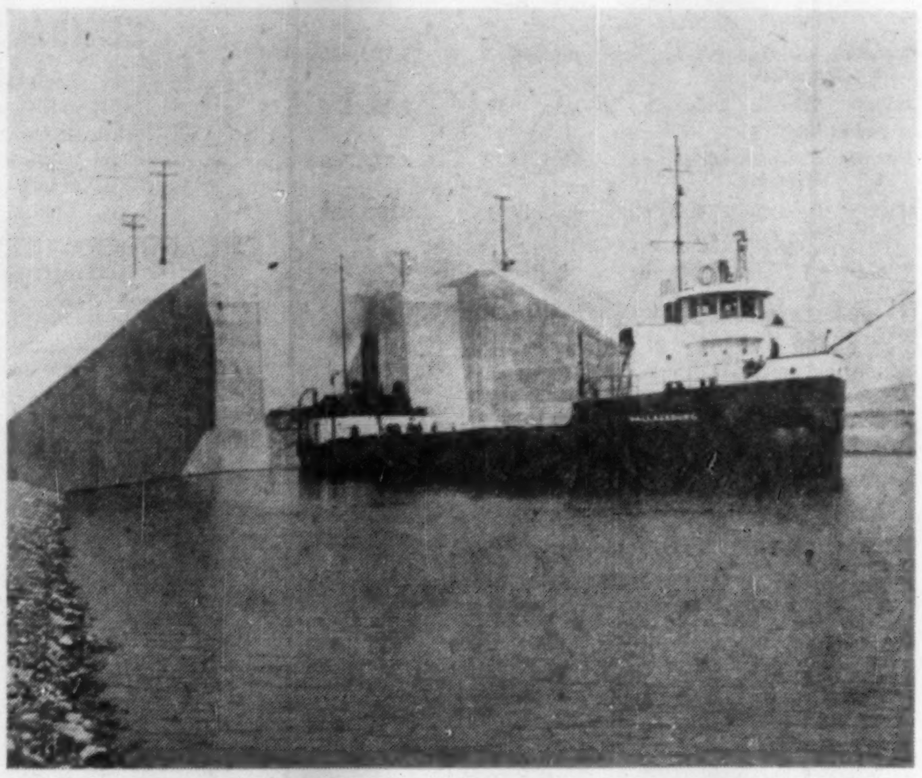
They argue that direct users should not be subjected to any more extra costs than are charged against users of rails and roads.

What Capacity?

However, if tolls are to be charged on cargoes, another question must be answered: What will be the capacity of the new waterway?

A recent estimate, by former Seaway president Lionel Chevrier, mentions "at least 33 million tons a year." Before we accept that, let's look at some undisputed figures from the immediate past.

It's true that the Seaway will provide larger facilities — but only between Montreal and Lake Ontario. The Welland Ship Canal will be part of the Seaway and except for deepening in some parts, that canal will stay as it is now.



CANAL SHIP passes through enormous concrete gateway on special canal diversion near Cornwall. The gate is actually a passage through the great dike behind the powerhouse, and it will be closed when the valley is flooded.

Last year, tonnage carried through that canal amounted to about 16 million tons which was moved in 9,360 vessels. Passing time, however, is determined by the number of lockages rather than the vessel total—often, ships lock through in pairs. In 1956 there were about 7,700 such lockages.

The average canal season each year is 259 days. Thus, working 24 hours a day, with a well established minimum of 45 min. for each lockage, the optimum number of lockages in a full season would be about 8,600.

That figure would be reached only if there were no holdups of any kind: no early freeze-up, no accidents to vessels, locks or the 14 highway and six railway bridges that have to be raised for passages of ships.

Even assuming such luck, there is still a gap of only 900 lockages between present traffic and the absolute top. One may ask:

If it takes 7,700 lockages to carry 16 million tons, how can that volume be more than doubled in only 900 additional lockages?

The obvious answer is that ships using Seaway will be much bigger than the ones now being used. But before that happens, somebody must build those bigger ships and at least as yet there are very little signs that a replacement rush is on the way.

There are a few—perhaps as many as 10—specially designed Seaway vessels under construction in European shipyards. They run about 9,000 tons which seems to be the generally accepted most economical size for a Seaway deep-sea ship. But 10—or even several times 10—larger deep-sea ships will not make the difference, because overseas trade will constitute only a very small percentage of Seaway traffic.

Last year, a very good one in that respect, total overseas trade in the St. Lawrence canals amounted to only about 750,000 tons—out of more than eight million tons.

With Canadian ship operators hesitant to move until they know where they stand (they are still waiting for the Royal Commission on Coasting Trade to report) there is no likelihood that Seaway traffic will change much from the present pattern, at least for the first 3-4 years.

Consequently, it appears most unlikely that there will be more than 20 million tons passing through the Welland Canal and it seems probable that on a flat-rate basis, tolls will have to be even higher than the earlier suggested $1 a ton.

In fact, even 20 million tons looks like an exaggeration of Welland Canal capacity. In 1956, one large operator alone lost nearly 80 days sailing time just through waiting to get into the locks there and passage time from Lake Erie to Lake Ontario or vice versa is steadily growing longer as more traffic attempts the passage.

The congestion after Seaway completion is also likely to get much worse because of the expected addition of many U.S. vessels.

For instance, much American grain now goes to storage elevators in Buffalo (capacity: 35 million bu. compared with Montreal's 16 million bu.). U.S. farmers are certainly going to want the use of the Seaway for much of that volume, rather than the much higher rail rates to the Atlantic ports.

How this added traffic is to be fitted in is another problem that remains to be answered.

Its Purpose

Here's another interesting question: Why is the Seaway being built?

Most of the publicity about it stresses export and import trade. The idea that the Seaway's primary purpose is to promote this has apparently gained wide credence both on this continent and overseas.

German shipping operators, for example, are reported to have wondered out loud why the Seaway isn't four feet deeper so it could take 15,000-ton ocean ships.

Promotion of foreign trade, of course, is only a secondary purpose of the Seaway. Primary purpose is the provision of safer, more adequate facilities for domestic and Canada-U.S. trade, especially in ores and grain.

Furthermore, chances are that vessels of the German-suggested size would be wholly uneconomical and inefficient in Seaway trade.

A study published last year by a well-known American naval architect, Sydney A. Vincent, concluded that the most economical ships for Seaway use would be 400 to 440 ft. long and of less than 8,000 tons. For these, the 27-ft depth is ample.

It seems apparent that although the Seaway will provide certain benefits, both immediate and long-term it's not going to be a watery highway to untold new prosperity. The effects will be neither sudden nor stupendous.

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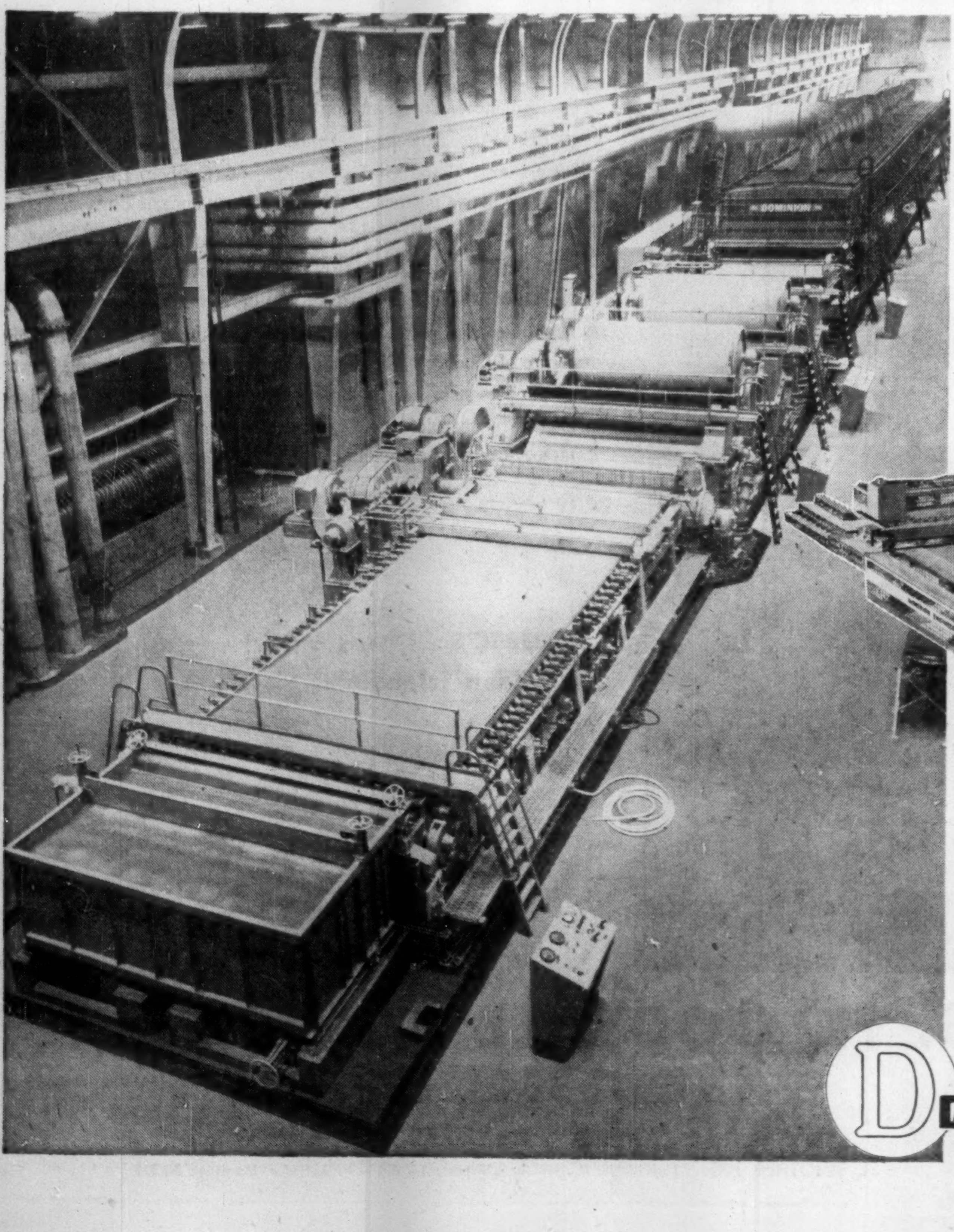

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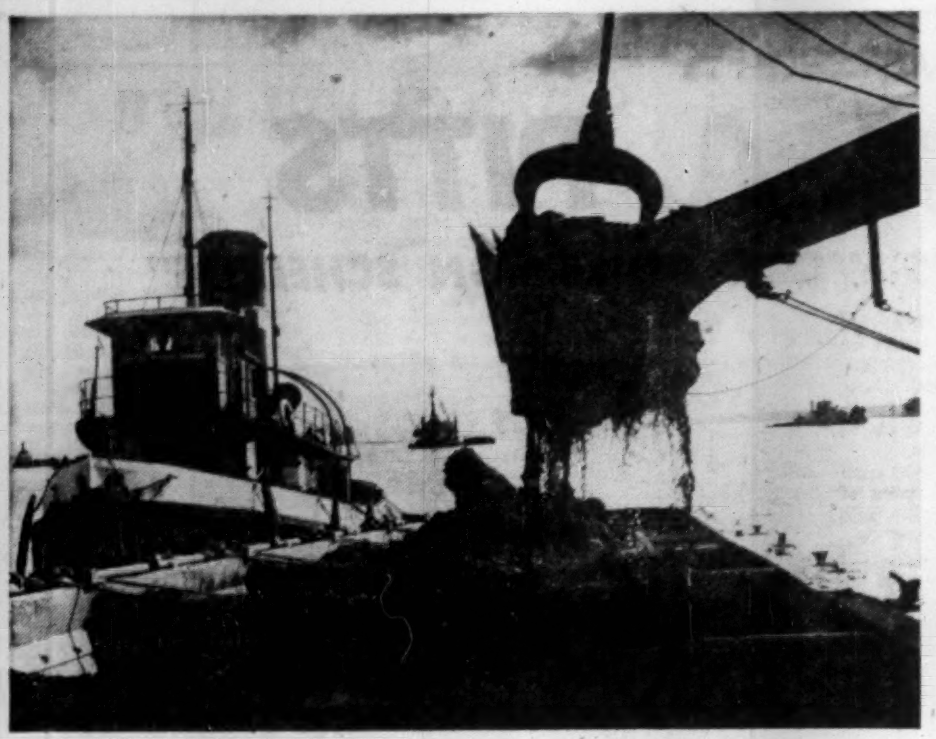

BUCKET DREDGE deepens the Lake St. Louis channel to 27 ft., working around the clock.

Shipping

Will Cargoes Boom?

"Some shippers are making big plans on assumption. Others are tending toward a wait and see attitude."

While construction work on the Seaway rumbles ahead on or better than schedule, the men who will use it—the shippers—are in deep discussion.

For them the whole project raises a series of vital questions.

Few shipping executives questioned by **FP** agreed on the final effect of the mammoth inland waterway on their future operations.

These are the major imponderables:

- Tolls.
- Closely linked to tolls, the whole question of comparative costs.
- The type of vessels that will best suit the Seaway.
- Potential cargoes.
- Possible overcrowding and delays.

There are other lesser questions to be settled. It is fair to say no one yet knows all the answers. Some shippers are making big plans on assumptions. Others are tending toward a wait and see attitude.

The whole question of Atlantic - St. Lawrence - Great Lakes shipping traffic is not new. Ships from the Atlantic first started serving the route in 1854 shortly after the first locks and channels of the original St. Lawrence system were opened.

Small schooners operated between the Great Lakes and Europe for a generation with export cargoes of hides, salt, lumber, beef and grain and imports of steel and manufactured goods.

But then came the railways and the steamships which combined to destroy the schooner trade since the canals could not handle ships large enough to operate on a competitive basis.

Stubby Steamers

The steamships began nosing up into the Great Lakes just after the end of World War I. A deepening of the St. Lawrence canals to 14 ft. in 1903 had paved the way for small, stubby steamers to reach the Lakes.

During the 1920s English, Swedish and Norwegian tramp steamers were occasional visitors at Lake ports loading or unloading bulk cargoes.

Liner Service

The Norwegian **Fjell Line** pioneered the liner service—as opposed to tramp service—when they began regular scheduled sailings between the Great Lake ports and Scandinavian countries at this time.

The liners, by their nature, carried high-class general cargo rather than the low-value bulk cargoes of the tramps.

This service received scant shipping support in its early days, but nonetheless the line extended its service to Baltic countries and started a service to London, Liverpool, Antwerp and Rotterdam.

In 1938 the Dutch **Oranje Line** entered the Great Lakes liner trade and continued operating until World War II put an end to the foreign-flag service on the route.

Post war both the lines announced they intended resuming service between Baltic and West European ports and the Great Lakes. By now the lure of this trade route was attracting scores of other foreign-flag firms.

One example of how this trade grew up after the war can be taken from sailings between the U. S. Midwest and European ports. In 1946 a total of 23 ships carried 30,234 tons of cargo out of Chicago, Milwaukee, Detroit, and Cleveland.

Eight years later a total of 225 vessels sailed the same route carrying 247,687 tons of general cargo. The comparable figures have risen steeply since then.

Last year 19 different lines provided direct service between European, African and South American ports and the Great Lakes. During that year a record was set, with about 400 sailings out of the lakes.

Some 100 ships now operate in the Great Lakes-foreign service, against 29 in 1950. Small tramp steamers have been entering the Great Lakes in increasing numbers for bulk cargoes, while the liners have fostered the general cargo trade.

Future Possibilities

All these figures relate to the present limited 14-ft. navigational facilities. What of the future?

Since the 1920s, pundits have been ready to give answers. Unfortunately these have varied widely. Here are some present estimates (they refer to both downbound and upbound traffic combined, in short tons).

Present traffic is about 10 million tons.

The Canadian Department of Trade and Commerce, after an early prediction of 44.5 million tons, now settles for 31 million. Great Lakes-St. Lawrence Association, a U. S. group, speaks of 45.7 million tons. No precise dates are given for these estimates; but they are understood to relate to a period five to 10 years after completion of the Seaway.

U. S. Seaway Development Corp. is more specific: 36.5 million by 1959, rising to 52 by 1965.

Of what will the new traffic consist?

Most estimates agree that the greatest relative increases will be in iron ore traffic from mines in the Quebec-Labrador trough to the U. S. and Canadian steel mills of the Great Lakes area.

How Much Grain?

The upbound iron flow may have an influence on the downbound grain flow by putting numerous empty bulk carriers in the lakes available for downbound grain service.

How big will the grain flow be? A recent University of Indiana study (for discussion see elsewhere in this issue) suggests that opening of the Seaway will divert about 20% of Canadian grain now shipped from Vancouver, adding 20 million bu. to recent annual averages of 100 million bu. (or a total of 3.6 million tons).

The study puts potential U. S. grain shipments via the Seaway (now very small) at 150-200 million bu. (4.5 to 6 million tons).

This agrees with a Trade and Commerce Department prediction that the Seaway will carry around 8 million tons of downbound grain traffic.

Although the major portion of Seaway traffic for some time will probably be bulk cargo, most estimates agree that there'll be substantial increases in general cargo as well.

This is probably the most difficult type of increase to calculate; however, the Trade and Commerce Department has suggested a sixfold jump, from a present 1,000 tons to around 6,000.

In any case, it appears there are green fields ahead for the shipper.

Yet this very potential in traffic raises scores of fresh problems. On the basic rule of thumb waterborne freight is more economical than any other.

It boils down to schoolboy physics. A horse can pull 10 tons of weight along a barge canal, but only one ton by cart. The same relationship exists between land transport and almost any type of water transport.

CPR President N. R. Crump has said that $35 million of freight now carried by his railway is "susceptible" to Seaway competition. It is logical to assume other surface routes — say from the Middle West to Eastern and Gulf ports in the U. S., might also lose a proportion to the ships.

But shippers do not underrate the competition they will face.

Railways and road transportation have an enormous advantage in speed. Ships move slowly — especially on inland waterways.

Waterborne freight, it is true, does not put forward speed as its principle selling point. But a ship delayed is a ship costing its owner a lot of money. A ship that has to call at a number of ports for its cargoes is also slicing into its owner's profits.

These costs have been put forth for an average 10,900-ton deadweight freighter visiting a Great Lakes or St. Lawrence port:

—Port charges—$1,700.

—Cargo expenses (loading, etc.)—$18,000.

—Agency fee—$300.

Having thus accumulated a $20,000 bill, the shipping company must also assume it is carrying a cargo for off-loading at the port.

Allowing this to be 5,000 tons of general cargo, it has been estimated that a further $11,000 will be added to the bill, bringing the cost to a total of $31,000 for one visit probably lasting three days.

A larger vessel — with increasing costs all along the line — will be losing money in every way if it was used on a shuffle service point to point.

Therefore the fewer ports a freighter must visit to get a full load, the better; also the freighter must move quickly once loaded. This is not always easy.

Take for example the Welland Canal. One Canadian shipping executive has said:

"Canadian operators have been viewing with concern the additional time now required to make passage through the canal due almost entirely to increased traffic. For example the average up bound passage time is now almost 11 hours, compared with about 7½ hr. in 1945, and the average downbound passage time is now 11½ hr. compared with about 8½ hr. in 1945."

It is the Welland locks rather than the channels which cause the trouble. Three of the Welland's eight locks are double like those on the Panama Canal, so that two-way traffic can be handled simultaneously. These present no serious problem. However, the other five are single locks, which means that some vessels must wait for others to be

(Continued on page 49)

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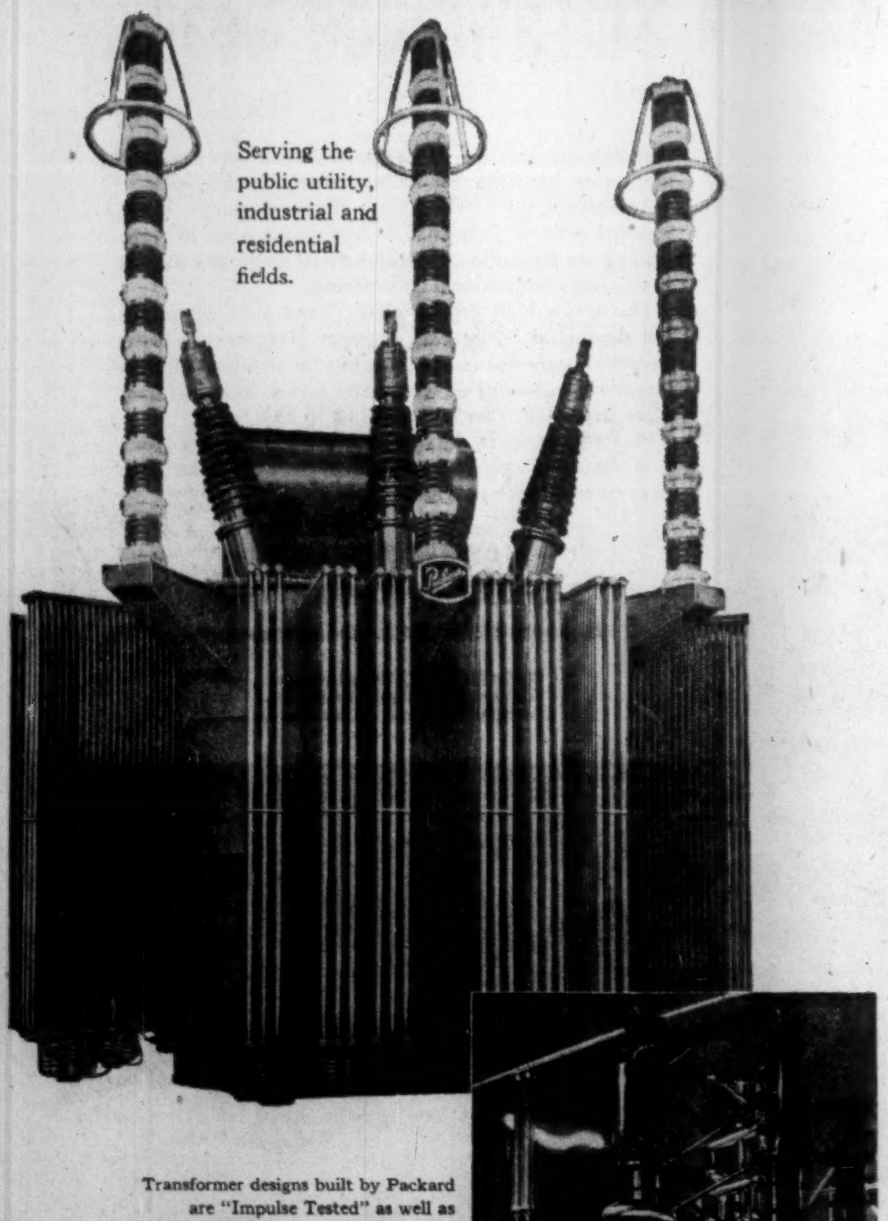

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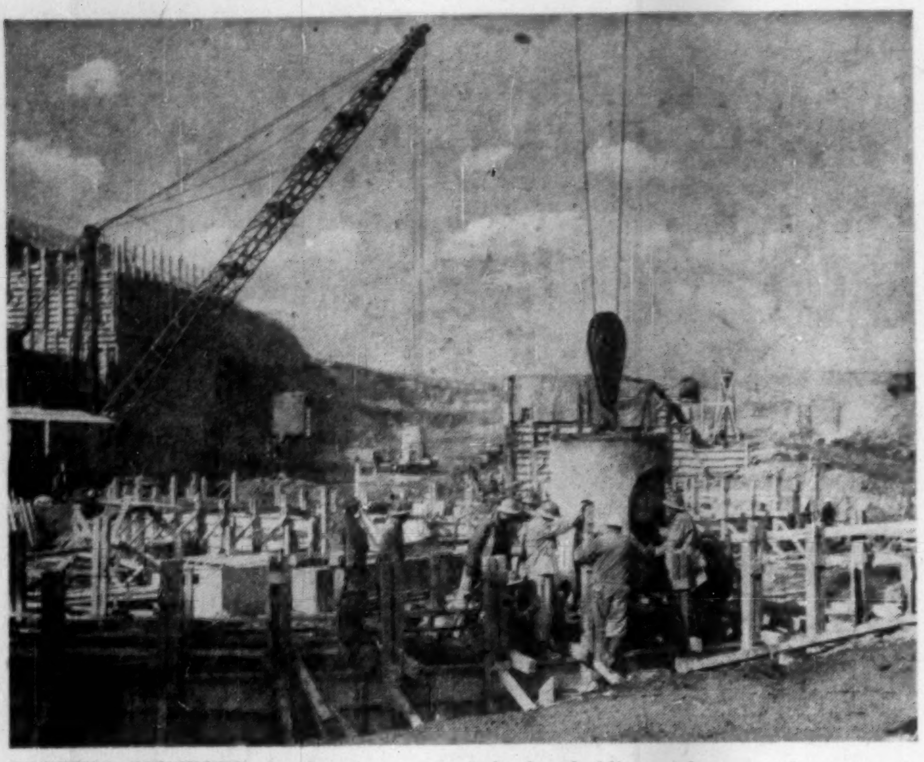

POURING CONCRETE the Seaway way: A bucket holding eight tons of concrete is swung over the forms. Trucks carry the buckets from batching plant to the job site. Giant gantry cranes lift the buckets to the forms. Site: Iroquois Lock.

Economics

How Will Canada Gain?

The St. Lawrence Seaway and the **CPR** have more in common than the fact that they have to do with transportation.

They have, in addition, this: Plans for both were among the most decried and criticized in Canadian history.

Yet the CPR became the iron link which created Canada.

It altered the economics of North American commerce in such a way that the calculations on which the 20 years of anti-CPR agitation were based lost much of their value in five years, and became meaningless in 10.

Amid all the pro-and-anti Seaway furor, one fact emerges:

The Seaway, too, will bring a fundamental change to the economic framework of North American commerce. The effects of the change may take years to work themselves out.

And when the changes are well under way, many of the "facts" — which are necessarily based on present statistics — being used to bolster pro-and-anti Seaway arguments, may not turn out to be "facts" after all.

And the farther away into the future the speaker projects his "facts," the more it becomes apparent that he is really dealing in arguments.

Seaway Tolls

For instance, much of the present anxiety in Canada on the thorny question of Seaway tolls stems from the condition imposed at the outset by the U.S. Congress that Seaway capital expenditures must be repaid within 50 years, plus interest.

When the Seaway was authorized by the U.S. Congress in 1954, the U.S. share of construction costs was estimated at $96 million and the Canadian at $192. Because construction costs generally have risen and because there have been changes in Seaway design, these estimates are out of line. A recent revised estimate puts the two figures at $143 and $305 respectively.

In 1954 it was felt that tolls could be devised by which costs could be liquidated within the required 50-year period. In 1957, because of the increase in costs, the tolls question becomes more complicated.

The question arises: If tolls are set high enough to liquidate the increased costs within the period, is there not a danger of strangling Seaway traffic?

This point is made by implication in what is probably the most comprehensive study yet published of the probable effects of the Seaway: The effect of the Seaway on grain movements? The study is by Joseph R. Hartley with the assistance of the Indiana University Bureau of Business Research and the Chicago Board of Trade.

Mr. Hartley compares the probable effects of the Seaway with those of the Erie Canal which runs from Buffalo on Lake Erie eastward through New York to Albany on the Hudson River. Prior to the opening of the canal (1825) there was no cheap means of transport between East Coast and Middle West; goods had to pass over the Alleghenies or through the Caribbean and up the Mississippi.

Few events had greater influence (than the opening of the Erie Canal) on the economic development of the U.S. says Mr. Hartley.

The Erie Canal profoundly affected every segment of the grain trade existing in the early 19th century. The entire Midwest was opened for agricultural expansion.

The hinterlands of the Great Lakes had previously remained unsettled because of the isolating affects of prohibitive freight costs. Between 1825 and 1840 most of the Northwest Territory was settled and placed under the plow. The Great Lakes moved from an inconsequential position to a trade route of major importance. Buffalo, Cleveland and Chicago grew from small villages to large cities within 20 years.

Basic Changes

It is changes of this sort which may be expected from the opening of the Seaway, Mr. Hartley feels. Changes in the basic economic substructure of North American commerce will result in far-reaching changes at the surface. And obstacles which now appear to be threatening may be swept away because of the strength of the forces which the Seaway opening will unleash.

How much will the Seaway benefit Canada? The U. S.?

A hot argument is raging over these questions.

One analysis of the subject — probably the most comprehensive which has yet appeared — suggests that the Seaway will bring long-term changes to the framework of North American commerce which will be of tremendous benefit to both countries.

It also suggests that many of the statements being hurled back and forth about the Seaway are based on surface considerations.

This is a discussion of Seaway predictions, based on J. R. Hartley's "The Effects of the St. Lawrence Seaway on Grain Movements."

Consider the Welland Canal. It's possible, by taking into account some of the factors involved at this point, to "prove" that the Welland will have a depressing effect on Seaway commerce. But hear Mr. Hartley:

Going through the various, and well-recognized calculations on lockages (time required to pass a ship, or, sometimes, two or three ships through a lock) he agrees with a Canadian Transport Department estimate that 3,000 cargo vessels would be possible per season through the present locks.

This lockage estimate was then applied to three different assumptions of ship capacity to find potential capacity. The optimum figure arrived at was 116 million tons, but this assumed perfect conditions.

The assumption most useful for our purpose was that 75% of vessels would be "upper lakers" of 10,000-ton capacity and 25% would be small canalers. The study concluded that if this were true the canal could handle 52.6 million tons of freight in both directions. This assumes heavy vessel loadings; ship-scheduling, and utilization of as many double or triple lockages as possible.

The key capacity figure for grain movements is the one-way estimate of 26.3 million tons, since virtually all of the present and potential grain movement is downbound. Present downbound traffic on the Welland approximates 17 million tons a year as compared with only 2.5 million tons upbound.

No Imbalance

Superficial examination of this lopsided traffic distribution suggests there is little room for more grain to move through the Welland and over the St. Lawrence. Some analysts look at the figures, assume that the Seaway traffic will have a similar imbalance, and conclude that the development of even a little new traffic is improbable, and 30 million tons of traffic is completely impossible.

The case isn't quite that pat.

Why? Because "common sense informs us" that replacement of the small canalers which use the canal at present with 8,000-ton seagoing ships and 15,000-ton lakers will push the downbound capacity above the present 17 million tons. Second, much of the expected increase in Seaway traffic will be upbound, not downbound; therefore, it will correct the present imbalance, not add to it.

Room for Growth

Going back again to his estimate of one-way capacity, 22.6 to 26.3 million tons, Hartley concludes that the canal may be restrictive by 1965. He subtracts the downbound traffic in 1954 (15.1 million tons) from the lower of these capacity estimates, and suggests that there will still be room for a growth of 7.4 million tons.

However, this isn't all. Some of the present downbound traffic is in iron ore (2.1 million tons in 1954). This will, of course, be replaced by traffic from Labrador; this means an-

(Continued on page 49)

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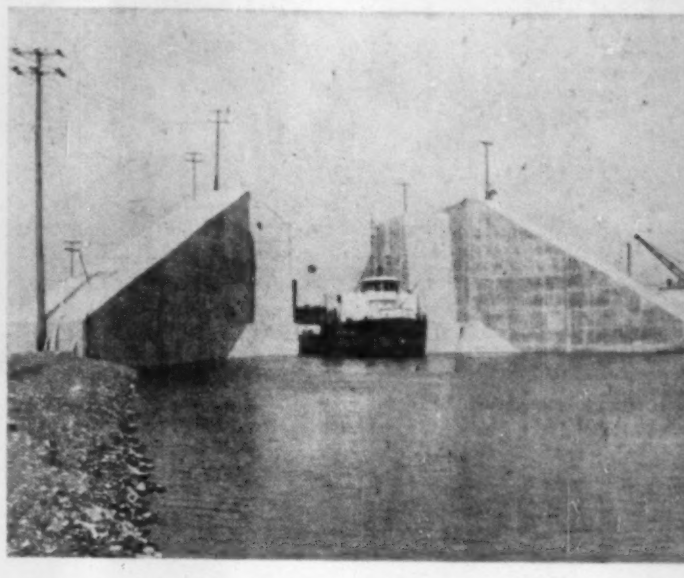

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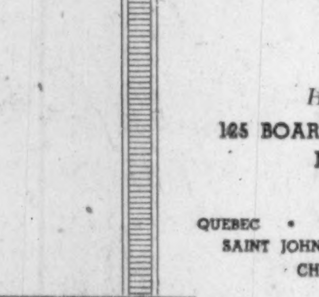

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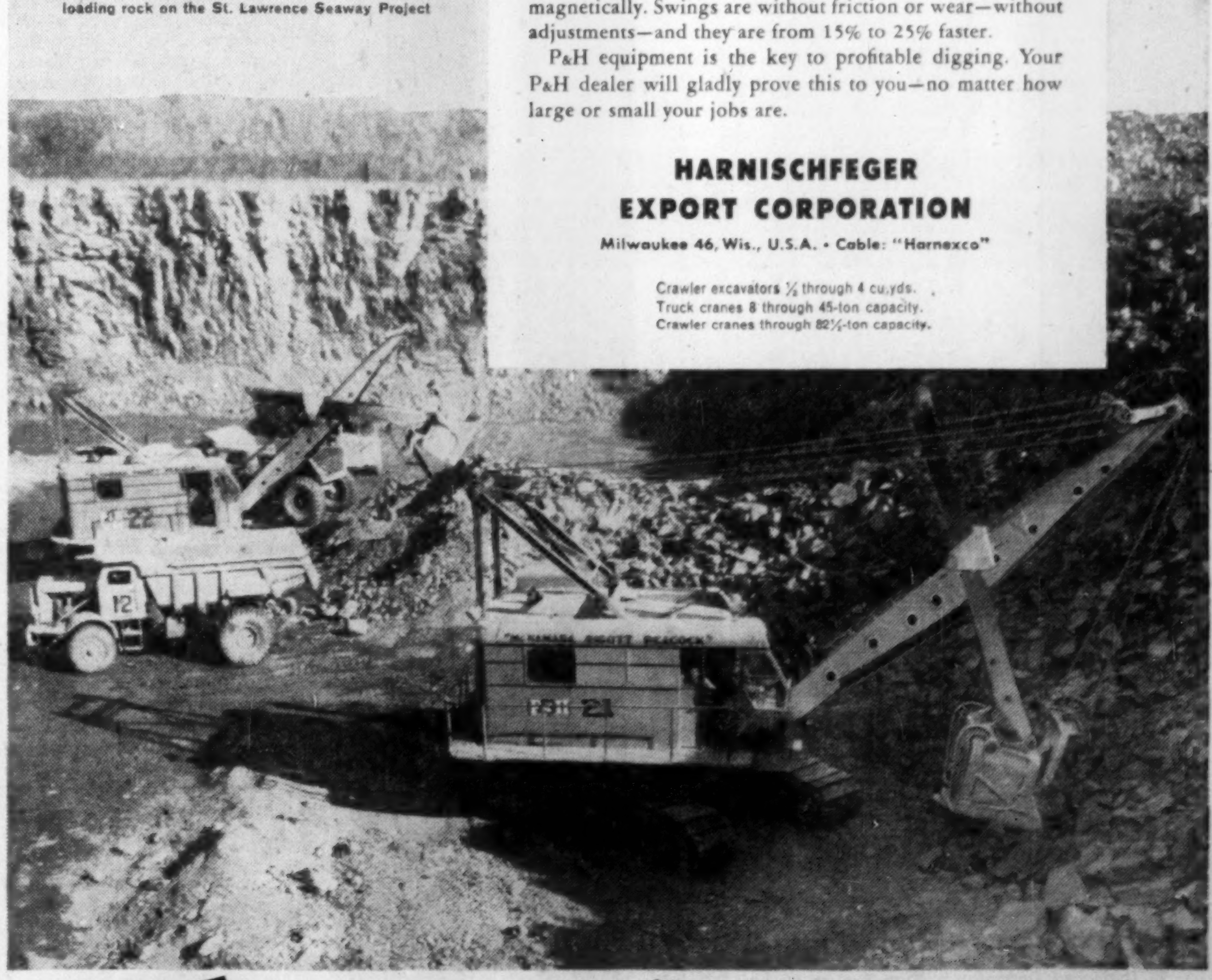

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Economics

Will We Benefit?

(CONTINUED FROM P. 48)

other two to three million tons of downbound growth capacity. And if the capacity of the canal reaches the higher estimate (26.3 million tons) as ship sizes increase, the capacity for new traffic may be pushed up to 12 or 13 million tons.

According to the Canadian traffic estimates any major development of downbound traffic will be in grain and general cargo — about five and four million tons respectively. These are probably within the physical limits of the Welland Canal, although there is little margin for further growth.

It can be fairly concluded therefore, that there is room for at least a 100% increase in grain movements along the St. Lawrence Seaway before the Welland Canal becomes a restrictive factor. Any such growth in grain traffic will have far-reaching effects on middle western grain centres and on present grain routes.

Nevertheless, the Welland Canal will restrict traffic probably by 1965 and certainly by 1970.

Regardless of what one decides about the capacity of the Welland Canal it is erroneous to conclude that it will prevent the Seaway from ever developing much new traffic in grain and other commodities.

What about the future? Will the Welland Canal become an obstacle to a strong, new basic commercial development of "interior North America" in the 1960's or '70's? Mr. Hartley doubts it.

The Welland Canal can rather simply be expanded to handle all the traffic the Seaway will ever generate in the foreseeable future. Three of the locks are already twins. Construction of five new locks to 'twin up' the others would more than double the capacity. He produces an estimate of $125 and $150 million as the cost of this.

What signs have appeared so far that the vast changes envisaged by Mr. Hartley will in fact take place? They can perhaps be summarized under these headings:

- Port development along the Great Lakes.
- Shipping company plans to utilize the new Seaway.

The major ports of the Great Lakes must be deepened to 27 ft. to take full advantage of the St. Lawrence Seaway and connecting channel improvements; new docks and new warehouses must be built, new loading facilities erected.

In general, the major ports — the ones who will be immediately affected by the Seaway — are doing this; some of the minor ones are "waiting to see."

In Canada, three of the cities which will be much affected by the Seaway, Montreal, Hamilton and Toronto, are busy with major extensions of harbor facilities.

Biggest program is at Montreal — $57 million worth of improvements to harbor and grain storage facilities. Hamilton has $7.5 million of improvements under way with at least as much more planned as soon as these are complete. Toronto also is backing up its hopes with millions in hard cash.

In the smaller centres, however, where it's not clear that large-scale increases in commerce will follow the Seaway opening, city councils are contenting themselves with drawing up plans on an "if and when" basis.

It's a good bet that most of these centres will "get down to business" when the Seaway traffic starts flowing past.

The same pattern is visible in the U.S. Great Lakes cities.

Chicago, which will probably be the No. 1 port on the lakes, is building two 6.5-million-bu. grain elevators. Milwaukee is spending $4.7 million to deepen its harbor slips and build new facilities. Detroit, Cleveland, Toledo and Duluth also have harbor improvement plans under way.

On the other hand, some of the smaller Michigan and Ohio communities are waiting for the traffic to develop.

How about ship building?

Shipping companies' plans aren't always publicized — in the sense of setting out destinations and uses of ships under construction. However, it appears that nine, perhaps 10, especially designed Seaway vessels are under construction in European yards; and nine big lakers (to carry 15,000-20,000 tons of cargo) are being built in Canadian and U.S. yards.

When it's considered that the present U.S.-Canadian laker fleet consists of about 600 ships and the Great-Lakes foreign service consists of 100; this can't be called a "rush" to replace it. Nevertheless, it can be described as a "significant movement in the direction indicated" by Mr. Hartley.

This statement doesn't take into account the fact that a substantial number of ships now under construction—and not so far designated as "Seaway" ships—could be used on the Seaway; and presumably will be when the shipping situation becomes more certain.

One of the factors now making it uncertain is the U.S. announcement that some American ships using the route will be subsidized. Three routes from American Great Lakes ports to overseas points, including Western Europe and South America, have been designated as liable for subsidy; and applications from American companies are under consideration.

These subsidies could knock plans of Canadian and foreign shipping companies to get into the Seaway trade into a cocked hat.

Since the war, Canada and the U.S. have followed divergent policies on overseas shipping services.

Because costs of foreign ship operations have been substantially lower than comparable Canadian costs, Canada has maintained open ports and, for British Commonwealth shipping, an open coastal trade. Reasons for this policy: Lower costs of Canadian products in overseas countries; dollars earned by foreign shipping are sometimes used for the purchase of Canadian products.

Because Canada has refused to subsidize Canadian ship operators, the Canadian deep sea fleet has practically been driven out of existence — it's down to a dozen carriers. Some ships, however, have been transferred to foreign registry.

On the other hand, the U.S. has been following an opposite policy. Ship construction and operation has been heavily subsidized and regulations require that U. S. aid abroad be carried in U. S. ships.

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Shipping

Will Seaway Cargoes Boom?

(CONTINUED FROM P. 47)

locked in the opposite direction.

The average amount of time required to lock one ship through a chamber in the Welland ranges between 45 and 50 min. The Department of Transport estimates 50 min.

So with non-stop operation, one lock could handle a maximum of 20 lockages per day, or 14 in each direction. With allowance for inevitable delays and non-cargo lockages, approximately 2,885 lockages in each direction can be handled in a shipping season of 244 days.

The best possible condition including a longer shipping season of say 259 days coupled with only 45 minute lockages would allow as many as 4,150 cargo and non-cargo lockages in each direction.

However, vessels do not travel along the route at evenly spaced distances. The movement of ships fluctuates from day to day and from month to month. There will inevitably be time-and-profit-consuming traffic jams.

3,000 Lockages

Recognizing these practical considerations, DOT has taken the more conservative figure of slightly less than 3,000 cargo lockages per season.

This would certainly allow enough ships to pass through during the course of the year, to carry the estimated tonnage in cargoes. But whether or not it would allow the ships to pass through quickly enough to make the operation economic for the owners, is far from settled yet.

The locks in the St. Lawrence River stretch will be more modern, and should give slightly better service. However, they will probably be handling rather more traffic—ships going only to Lake Ontario ports—and certainly in the early years will be only single locks.

Thus an identical series of problems should crop up on this stretch.

Another matter that closely affects the cost picture is straight speed. Not just the bottle-neck delays but the speed at which ships can progress along the route.

Here the Seaway scores heavily. For instance, between Montreal and Chicago - a total distance of 1,242 miles — 1,013 miles are open water with no speed limit.

The only sections on that route where ships will be slowed down are in the St. Claire River area, Welland. Canal and the St. Lawrence River canals. Speed limits are imposed in some sections of the St. Claire and Detroit Rivers in the 88-mile stretch between Lake Huron and Lake Erie.

In the 28-mile Welland Canal, speed limit on vessels over 260 ft. in length is 6 to 7 miles per hour. In 1954 the average transit time in the Welland Canal for a medium-size ship was 8.5 hr. upbound and 10.5 hr. downbound. This comes out to an average of 2.5 miles an hr. for the 28 miles.

The speed limits have not yet been set for the 114 miles of new Seaway channel between Ogdensburg and Montreal. However, one expert guesses that it will be around 12 mph.

Loses Time

Planners estimate, then, a large ocean vessel will lose some steaming time in travelling on the Seaway as opposed to covering an equal distance on the ocean. A new ship with a speed of 16 mph will lose one day in each direction, or two days in the round trip between Montreal and the Lakehead.

The various speed limits are progressively less embarassing for older, slower ships; so their actual loss time will be rather less than two days.

An old Liberty ship, as an example, would lose time only in the locks and canals since its cruising speed of 10 knots is no higher than the present and anticipated speed limits on the various connecting channels.

Privately many shipping executives will tell you there are plenty of things wrong with the present Seaway plan. All the locks have facilities for doubling — that is building a second lock alongside.

Some shippers feel that should be done now. But the cost would be enormous. It has been estimated to "twin" five Canadian locks on the upper St. Lawrence would cost $250 million; with a further $75 million to twin the two U. S. locks at Messina.

Another subject that can bring up lively discussion in shipping circles is the ideal Seaway vessel.

The "Seaway design" in 1957 looks like whatever the viewer wants it to. For instance, lake shippers aiming for the bulk cargoes see the biggest ship that can fit into the locks—providing cargoes live up to estimates.

Canada's St. Lawrence Seaway Authority recently listed maximum dimensions of vessels which would be allowed to use the Seaway: 715 ft. long, with a beam of 72 ft.

Presumably, most Seaway vessels which would approach these dimensions would be lakers, which can be much longer than ocean-going vessels of similar draft. In this case, the Seaway's 27-ft. draft would be the limiting factor.

Ocean operators must look first to structural strength of their ships. Most operators questioned by FP could see no basically new Seaway design, because seaworthiness is the controlling factor.

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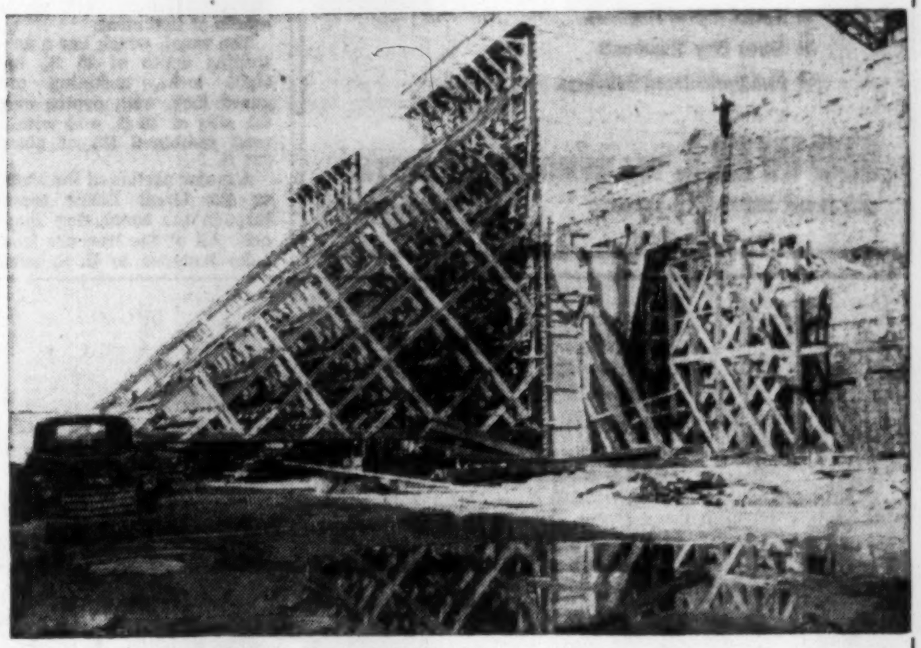
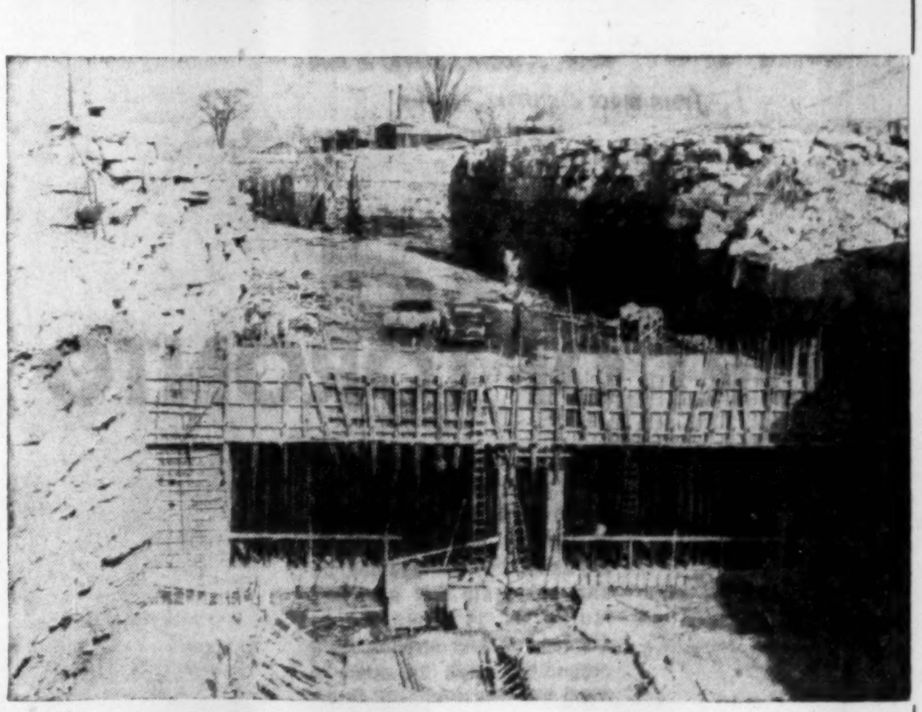


Lock form, block No. 19, at Beauharnois

The St. Lawrence Seaway, already about half completed, is Canada's biggest construction job. We shared in various phases of this gigantic undertaking: Construction of locks, channel excavation, highway tunnel and production of aggregates.



Roof structure for No. 3 highway tunnel under lower Beauharnois lock

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Connecting Channels

U.S. Deepening These Vital Links

When the Seaway is complete, ocean ships will find a 27-ft. channel from the sea to the Lakehead.

Most Seaway work publicized in Canada concerns the channels from the sea to Lake Erie. But there's $135 million of equally important work going on of which little is heard in this country.

This is the channel deepening project being carried out by the U. S. Army Engineers to provide 27-ft. channels between the other lakes.

Brig.-Gen. P. D. Berrigan, in charge of the project, described it recently in an article in The Constructor, publication of the Associated General Contractors of America. This is a digest.

By Brig. Gen. P. D. BERRIGAN
U. S. Army Engineers

The five Great Lakes, Superior, Huron, Michigan, Erie and Ontario, form the headwaters of the 1,150-mile long St. Lawrence River.

These lakes, with their connecting channels and the St. Lawrence River, comprise a continuous series of navigable waterways which extend half way across the North American continent.

The length of the vessel track from Duluth at the west end of Lake Superior to the Atlantic Ocean at the Gulf of the St. Lawrence is about 2,300 miles.

The Great Lakes and their connecting channels have a water surface area of about 95,000 sq. miles, of which about 61,000 are in the U. S. and 34,000 in Canada.

The international boundary passes through all of the Great Lakes and their connecting channels, except Lake Michigan which is wholly within the U. S.; and through the St. Lawrence for a distance of about 112 miles from the head of the river to Cornwall, Ont.

The Great Lakes connecting channels include the waterways between Lakes Superior and Huron, Lakes Huron and Michigan, and Lakes Huron and Erie.

- The St. Marys River, including the shoal approach to the head of the river, is the connecting channel between Lake Superior and Lake Huron.
- The Straits of Mackinac and approaches comprise the connecting channel between Lake Huron and Lake Michigan.
- The St. Clair River, Lake St. Clair and the Detroit River, with the approaches in Lake Huron to the head of the St. Clair River and in Lake Erie to the mouth of the Detroit River, comprise the connecting channel between Lake Huron and Lake Erie.

Flows Southeast

The St. Marys River leaves Lake Superior at Point Iroquois at the westerly end of the lake and flows in a generally southeasterly direction for a length of about 70 miles to Lake Huron.

The river drops about 22 ft. between the two lakes with most of the drop occurring at St. Marys Falls at Sault Ste. Marie.

The natural control of the outflow from Lake Superior was the rock ledge at the head of the falls. This natural control has been replaced by a gated control dam, powerhouses and locks so that the outflow since 1922 has been completely controlled and the levels of Lake Superior are regulated.

Lakes Huron and Michigan are, in effect, one lake from the standpoint of navigation because the Straits of Mackinac which connect the two lakes are broad and deep so that there is no perceptible flow between them and their surfaces are at the same level.

The outlet of Lake Huron is through the St. Clair River, Lake St. Clair, and the Detroit River to Lake Erie, a distance of 87 miles, with a total drop of about eight feet between the two lakes.

The slopes of water surface profiles along the 39 miles of the St. Clair River and the 30 miles of the Detroit River are relatively uniform and the rivers are free flowing throughout their entire lengths without any navigation locks.

Lake St. Clair connects the mouth of the St. Clair River with the head of the Detroit River, has natural depths of only 18 ft. or 19 ft., and has dredged through it a channel for deep-draft navigation.

Welland Canal

The outlet for Lake Erie is the Niagara River which empties into Lake Ontario. The total drop between the lakes is about 326 ft. Navigation passes between the two lakes through the Welland Canal.

This canal, constructed by Canada, leaves Lake Erie 18 miles west of the head of the Niagara River and enters Lake Ontario 7½ miles west of the mouth of that river.

The canal, which has a controlling depth of 25 ft., has eight locks, including one guard lock, with depths over the sills of 30 ft. and with a total combined lift of about 326 ft.

A major portion of the traffic on the Great Lakes passes through the connecting channels. All of the iron ore from Lake Superior to U. S. ports passes down the St. Marys River to Lake Huron.

Part of it then goes through the Straits of Mackinac to the South Chicago steel-producing area on Lake Michigan.

The remainder goes to Detroit and Lake Erie ports through the St. Clair River, Lake St. Clair and the Detroit River.

The major movement of coal is westerly and northerly from Lake Erie ports through the connecting channels to ports on Lakes Huron, Michigan and Superior.

Limestone movements are easterly and southerly from quarries along the shores of Lakes Michigan and Huron. A large volume of this traffic moves through the connecting channel between Lakes Huron and Erie.

The predominant movement of grain is from Lake Superior ports and from Chicago to Lake Erie and beyond, and, consequently, it passes through the connecting channels. Petroleum products are distributed by boat throughout the Great Lakes and a large volume of this traffic passes through the connecting channels.

Eight-Month Season

Traffic on the Great Lakes is limited largely to about an eight-month navigation season from April to November, inclusive, when the connecting channels and harbors are free of ice.

The movements of iron ore, stone, coal and petroleum products are fairly well distributed throughout the navigation season.

The grain movement is concentrated during the latter part of one season and the beginning of the next season.

Commerce on the Great Lakes constitutes about 25% of the total waterborne commerce of the U. S., including all ocean ports and inland waterways. During the five-year period from 1949 through 1953, the total commerce on the Great Lakes, including exports from and imports to U. S. ports but not including all-Canadian traffic, varied from about 174 million tons to 242 million tons and averaged about 214 million tons.

Total U. S. commerce, including imports and exports, through the St. Marys River for the 15-year period 1941 to 1955 varied from a minimum of 81,809,314 tons in 1954 to a maximum of 122,724,301 tons in 1953.

Comparable figures for the Detroit River vary from a minimum of 102,358,036 tons in 1954 to a maximum of 140,729,410 tons in 1953.

In addition to U. S. commerce passing through the connecting channels, there is a substantial volume of all-Canadian and other foreign commerce.

In the St. Marys River, during the 15-year period, Canadian and foreign commerce varied from 5,724,597 tons in 1943 to 10,257,752 tons in 1953, consisting primarily of grain, and averaged about 7,500,000 tons annually.

Exact figures are not available on the all-foreign commerce passing through the Detroit River but the volume is approximately equal to that passing through the St. Marys River.

Started 100 Years Ago

Improvement of the connecting channels by the U. S. commenced 100 years ago and has continued progressively with the changing requirements of navigation.

Under the authority of the act of 8 July 1856, the U. S. Corps of Engineers began work toward providing a channel 14 ft. deep through Lake George in the lower St. Marys River.

By 1869 a channel 11½ ft. deep was available from Lake Superior to Lake Huron.

Various improvements were authorized and construction in the St. Marys, St. Clair and Detroit Rivers between 1867 and 1905 to provide controlling depths of 18 ft. between Lake Superior and Lake Erie.

At the present time controlling depth of 25 ft. in downbound channels and 21 ft. in upbound channels when the ruling lake level is at low water datum, are available between Lake Superior and the Lower Lakes.

The deeper depths were provided in the downbound channels to accommodate deep-draft loaded ore carriers.

The downbound and upbound channels are separated in two places, along one reach in the lower St. Marys River and along one reach in the lower Detroit River.

In the St. Marys River downbound and upbound traffic are separated for about 15 miles in the Neebish Channels.

The West Neebish Channel which carries downbound traffic has a controlling depth of 25 ft. with a minimum width of 300 ft.

The Middle Neebish Channel for upbound traffic has a controlling depth of 21 ft. with a minimum width of 500 ft.

In the lower Detroit River downbound and upbound traffic are separated for about seven miles. In this reach the Amherstburg Channel with a controlling depth of 21 ft. carries upbound traffic, while downbound traffic passes through the 25-ft. depth Livingstone Channel.

New Locks

In addition to the channel improvements in the connecting channels, four locks and two approach canals are provided in the St. Marys River.

Congress has authorized a new modern Poe Lock with a depth over the lower sill of 32 ft. to replace the existing Poe Lock. There is also one Canadian lock in the St. Marys River.

The total initial cost of all improvements by the U. S. in the connecting channels, including the locks in the St. Marys River, to June 30, 1955, was about $95,650,000.

In addition, about $34,596,000 has been expended for maintenance and operation. These expenditures are relatively nominal when related to the vast amount of commerce which is carried through the connecting channels.

An act of Congress authorizing the deepening of the connecting channels as recommended was signed by President Eisenhower on March 21, 1956.

In addition to the improvements to the connecting channels authorized by the act, there are four other improvements previously authorized, but unconstructed, in the same channels.

These are:

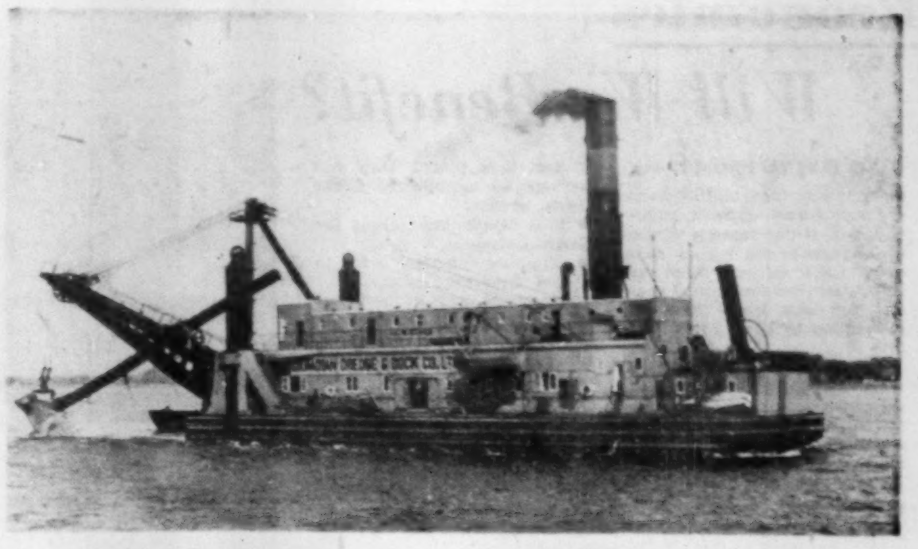
—The widening of southeast bend in the St. Clair River from 700 ft. to 800 ft. to depth of 26 ft.

—The deepening of the westerly 300 ft. of the 600-ft.-wide Amherstburg Channel in the Detroit River from 21 to 27 ft.

—The dredging of anchorage areas in the lower St. Marys River at Lake Nicolet and in the upper St. Marys River at Point Iroquois Shoals.

The deepening of channels in the latest authorization provides for increasing the authorized depth over each of these areas and consequently the work in these areas will cover both the latest and previous authorizations when it is accomplished.

Consequently, work will include all the authorized channel work included in the latest and previous authorizations.



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*Each ship in the above graph represents 500,000 short tons of cargo.

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All cargo moves with greater speed, less handling through the Port of Toronto. Streamlined cargo-handling facilities and direct rail, road, air and water transport connections help save a shipper much time and money.

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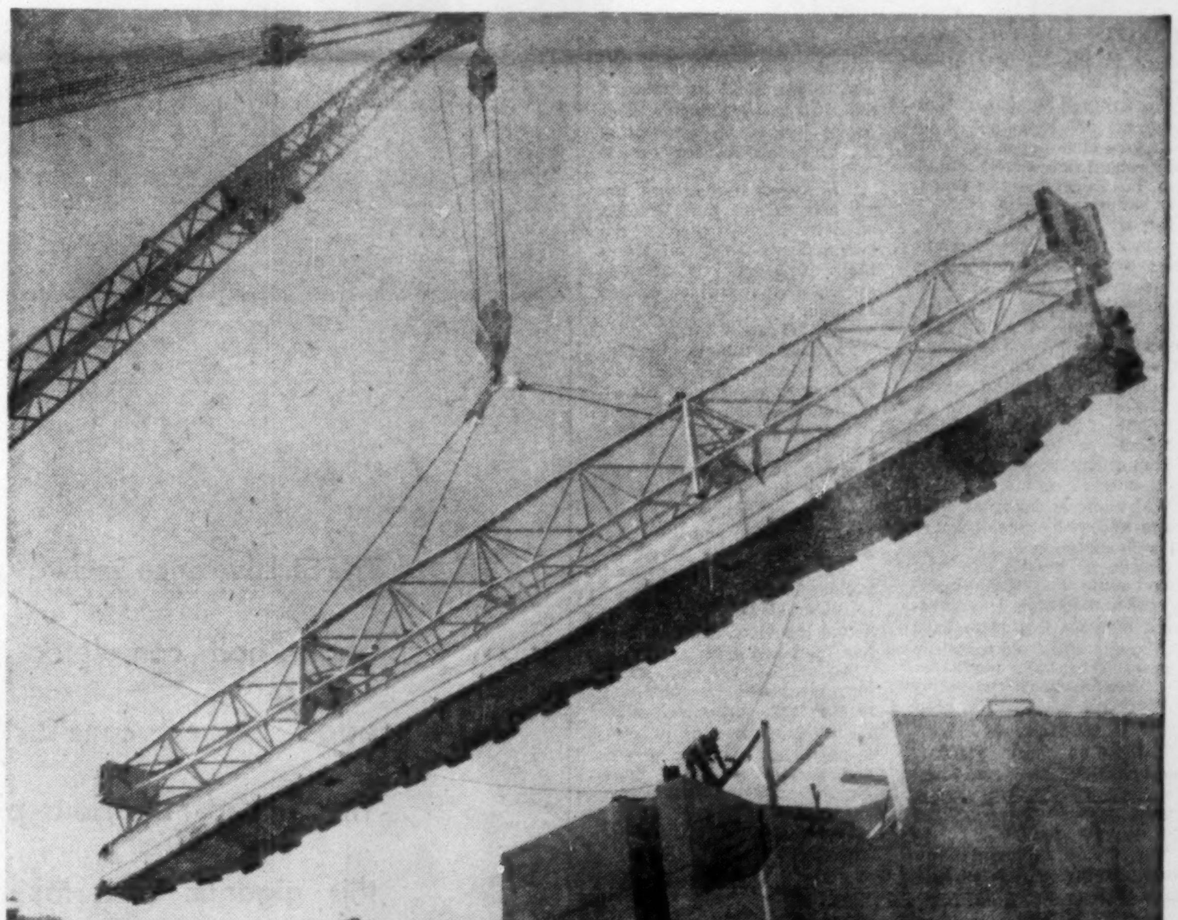

MLW builds Stop Logs for the St. Lawrence Seaway

Fabricated steel stop logs are slotted into the Seaway canal to create a watertight barrier and permit "dry" installation or repair of the permanent lock gates. MLW is building a total of 102 stop logs (each weighing 32 tons), together with 10 lifting booms, for the five sets of Canadian Seaway locks between St. Lambert, Quebec, and Iroquois, Ontario.

This fabrication of stop logs is an example of the diversity of operations carried out at MLW. In addition to serving Canada's railways as a foremost builder of diesel locomotives, MLW builds a wide range of industrial equipment and machinery. A completely equipped plant and years of manufacturing experience are available to MLW customers, and the Company has the resources and the knowledge of key industrial markets to enter additional product fields.

MLW

Industrial Division
MONTREAL LOCOMOTIVE WORKS LIMITED

Manufacturers of diesel locomotives, heat transfer equipment, steel mill equipment, welded steel pipe, pulp and paper machinery, hydraulic and mechanical presses.

Construction

Many Companies on Job

(CONTINUED FROM P. 45)

JOB	CONTRACTOR	DATE	AMOUNT $ $
Installation electrical system at Côte Ste. Catherine Lock.	G. M. Gest Ltd., Montreal.		257,397
Production of railway ballast and roadway base material at Côte Ste. Catherine.	J. M. Langlois.		567,600
Soulanges Section			
Production of concrete aggregates at Beauharnois.	Canit Construction Ltd., Montreal.		2,131,000
Construction of lock and approaches for Lower Beauharnois.	Canit Construction Ltd., Montreal.	Oct. 31, 1958	11,199,925
Construction of lock and approaches for Upper Beauharnois.	United Waterways Contractors Ltd., Montreal.	Nov. 30, 1958	14,440,000
First stage construction of lower and upper Beauharnois locks, with approaches involving 200,000 cu. yds. common excavation, rock grouting cofferdam construction and unwatering, construction of service roads and relocation of part of NYC railway line.	Atlas-Winston Ltd., Montreal.	Oct. 31, 1956	3,479,750
Supply and erection vertical lift bridge spans at St. Louis and Valleyfield bridges.	Dominion Structural Steel Co.	Nov., 1958	6,343,146
Superstructure for NYC swing bridge at Upper Beauharnois lock.	Bridge & Tank Co., Hamilton.	Aug., 1957	508,370
Lake St. Francis Section			
Dredging Lake St. Francis, Lancaster Bar.	Marine Industries Ltd.	June, 1958	384,000
Dredging western approach to Beauharnois canal in Lake St. Francis, including dredging of 1.1 million cu. yds. of sand.	McNamara Construction Co., Toronto.	June 30, 1958	682,000
Dredging 2.7 million cu. yds. of overburden from Fraser Point to Cornwall in Lake St. Francis.	Canadian Dredge & Dock Co., Toronto.	June 30, 1958	4,698,000
Welland Section			
Enlarging canal channel between Locks 1 and 2, with excavation of 143,000 cu. yds. of material, removal of 50 cu. yds. of concrete slabs and placing of 100 cu. yds. of stone protection.	McNamara Construction Co., Toronto.	June 30, 1958	359,755
Enlarging canal channel between Locks 2 and 3, with 565,000 cu. yds. of common excavation, removal of 600 cu. yds. of concrete slabs and placing 200 cu. yds. of stone protection.	Swansea Construction Co., Toronto.	June 30, 1958	698,260
Enlarging canal channel between Locks 3 and 4 with 50,000 cu. yds. of common excavation, removal of 100 cu. yds. of concrete slabs and placing of 100 cu. yds. of stone protection.	Aiken & MacLachlan Ltd., St. Catharines, Ont.	June 30, 1958	104,000
Deepening four miles of the existing channel to 27 ft. (from 25 ft.) extending 2½ miles above and 1½ miles below Lock 8 and including approach channels.	McNamara Construction Co. and Canadian Dredge and Dock Co., Toronto.	Sept. 30, 1958	11,623,200
Dredging station 0-00 to Lock No. 1.	J. P. Porter Co.	July, 1957	642,600
Dredging guard gate to station 710-00.	Russell Construction Co.	Sept., 1958	7,280,575
International Rapids Section			
Construction of seven-story headquarters building, Cornwall.	M. Sullivan & Sons, Arnprior, Ont.		1,337,337
Construction of canal and lock to carry ships past control dam at Iroquois, Ont. Some 6,600 ft. long, project requires excavation of 4.5 million cu. yds. of material.	Pentagon Construction Co. and Iroquois Construction Ltd., Montreal.	Nov. 30, 1957	6,470,000
Temporary water supply for Courtaulds Ltd., Cornwall.	John Entwistle.	Apr., 1957	350,000
Substructure for H.L. Bridge south channel.	McNamara Construction Co.	Apr., 1959	1,240,550
Dredging north channel Cornwall Island.	McNamara Construction Co.	Oct., 1958	3,574,000
Dredging and improvements Cornwall Island.	Marine Industries Ltd.	Nov., 1958	13,411,000
Excavation south channel Cornwall Island.	C. A. Pitts — General Contractor Ltd.	Oct., 1958	4,239,270
Dredging approach to Iroquois Lock.	Canadian Dredge & Dock Co.	Nov., 1958	3,245,450
Alterations to swing bridge at Iroquois.	Dominion Bridge Co.		110,000
Supply and installation electrical system at Iroquois Lock.	Donovan Const. Co.	Mar., 1958	273,948
Turning basin above Lock 19, Cornwall canal.	C. A. Pitts — General Contractors Ltd.		60,000
Supply and installation of machines for lock gates.	Canadian Vickers Ltd., Montreal		1,508,520
Supply of stop logs, pick-up booms, etc., for locks.	Montreal Locomotive Works Ltd., Montreal		2,210,400
Supply and installation of unwatering pumps and sump pumps at locks.	Canadian Ingersoll Rand Co., Montreal		387,516
Supply of electrical cubicles for power supply, heating and lighting at locks.	Northern Electric Co., Montreal		313,165
Supply and erection of stiff leg derricks for all locks.	Timberland Machines Ltd.		649,000
Supply and erection of sector gates at Côte Ste. Catherine, Upper Beauharnois, and Iroquois locks.	Dominion Bridge Co.		2,589,477
Electrical cubicles for control of unwatering pumps.	Electrical Manufacturing		38,559
Electrical cubicles for control of sector and mitre gates, valves and fenders.	Canadian Westinghouse Co.		337,331
Supply and erection of wire rope fenders at all locks.	Maritime Steel & Foundries Ltd.		2,289,460
Supply and installation of valve operating machines at all locks.	Bridge & Tank Co.		1,278,360
Supply and erection of Taintor gate valves for locks.	Bridge & Tank Co.		773,670
Supply of electrical control desks for locks.	Northern Electric Co.		29,973
Supply and installation diesel generator standby sets at 4 locks.	Northam Equipment Ltd.		161,202
Supply and erection of mitre gates at locks.	Canadian Vickers Ltd.		4,269,825
Portable diesel driven pumps.	Canadian Fairbanks Morse Co.		33,600
Electrical motors for operation of sector and mitre gates, valves and fenders.	Bepco (Canada) Ltd.		134,046
Limit switches for control of sector and mitre gates, valves and fenders.	Northern Electric Co.		44,086
Line haulers for locks.	Stephens Adamson Mfg. Co.		64,400
Lighting standards and units for locks and prisms.	Canadian Westinghouse Co.		145,997

Bigger Ships

Increase in Ship Size Made Possible by the St. Lawrence Seaway

Characteristic	Dimensions of Average Ships: Present Great Lakes Route	On the new Seaway	Approximate Increase
Operating Draft (ft.)	14	25	11
Length of Ship (ft.)	254	450	100
Beam (ft.)	42	62	20
Cargo Capacity (long tons)	1,450	7,200	5,600

a FULL RANGE of winches, derricks, power units and blocks for

- CONSTRUCTION
- LOGGING
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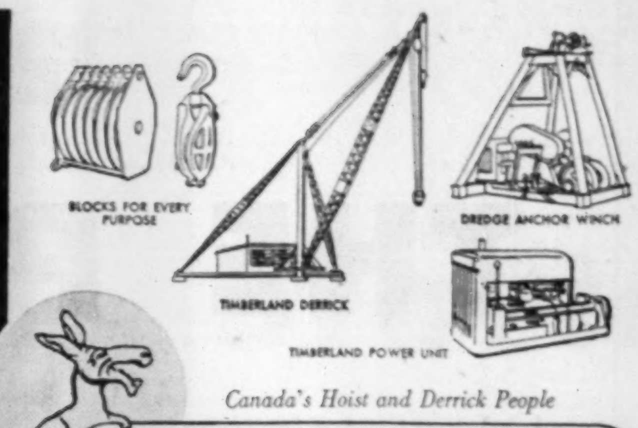

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carries a big load on the SEAWAY too!

On the mighty St. Lawrence Seaway project, as on construction jobs from coast to coast, Internationals have been chosen to do the lion's share of the heavy duty hauling.

Why has International won this overwhelming vote of confidence from cost-conscious construction men? Because Internationals have *proved* themselves . . . on the job *and* on the cost sheets!

Trucks pay their way *only* when they're on the job! And Internationals are built big to keep up the pace with minimum downtime and delay. Just as important, factory-trained dealers from coast to coast offer *fast* and expert parts and service on the job or in the shop.

See your International dealer soon. He'll help you choose the right unit for your job from the *complete* line of Internationals.

Your choice of Gasoline or Diesel gives you *exactly* the power you need for *your* operating condition.

International Trucks have set new records of dependable performance on the Seaway . . . and will set new records for *you*, too!

INTERNATIONAL TRUCKS

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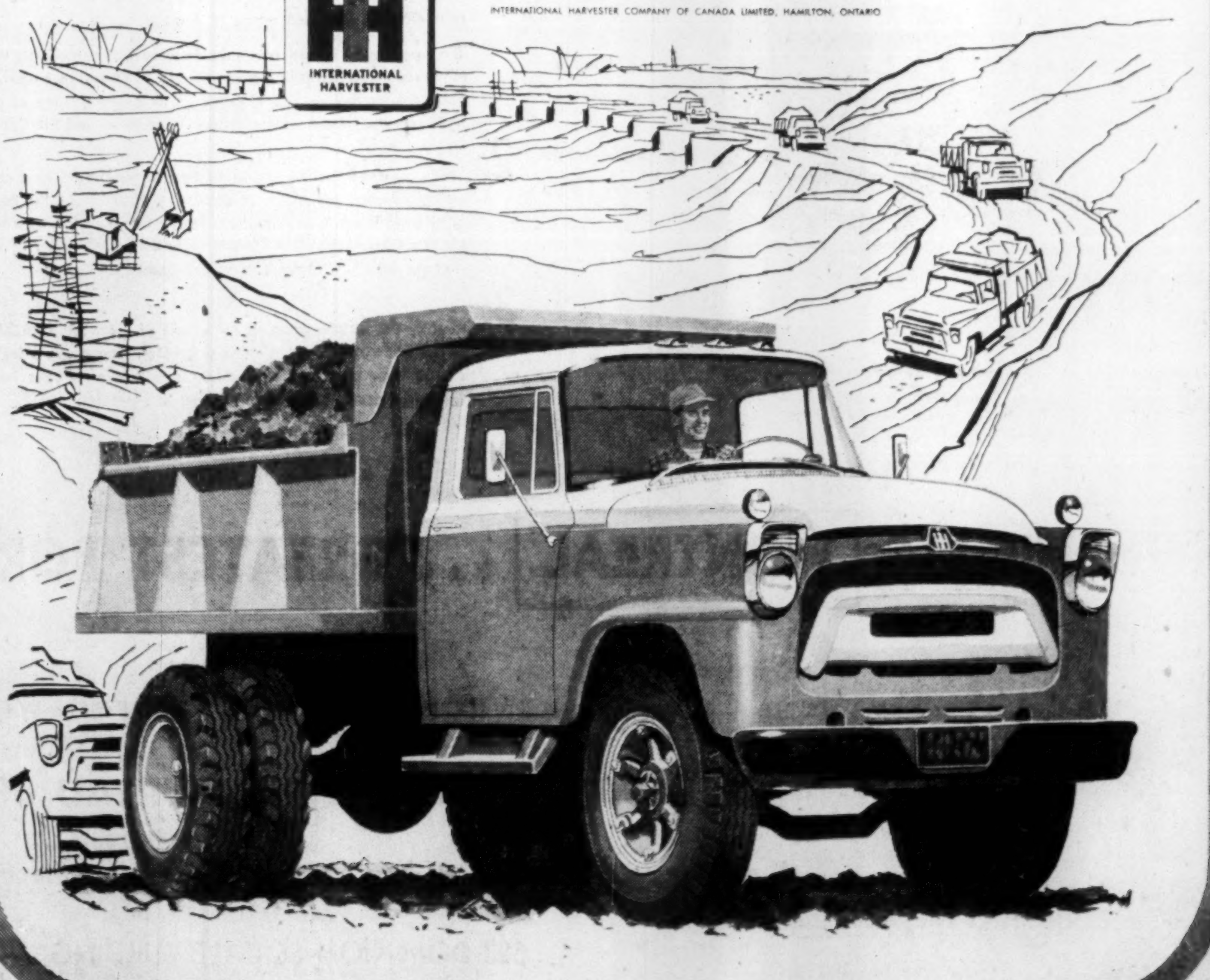
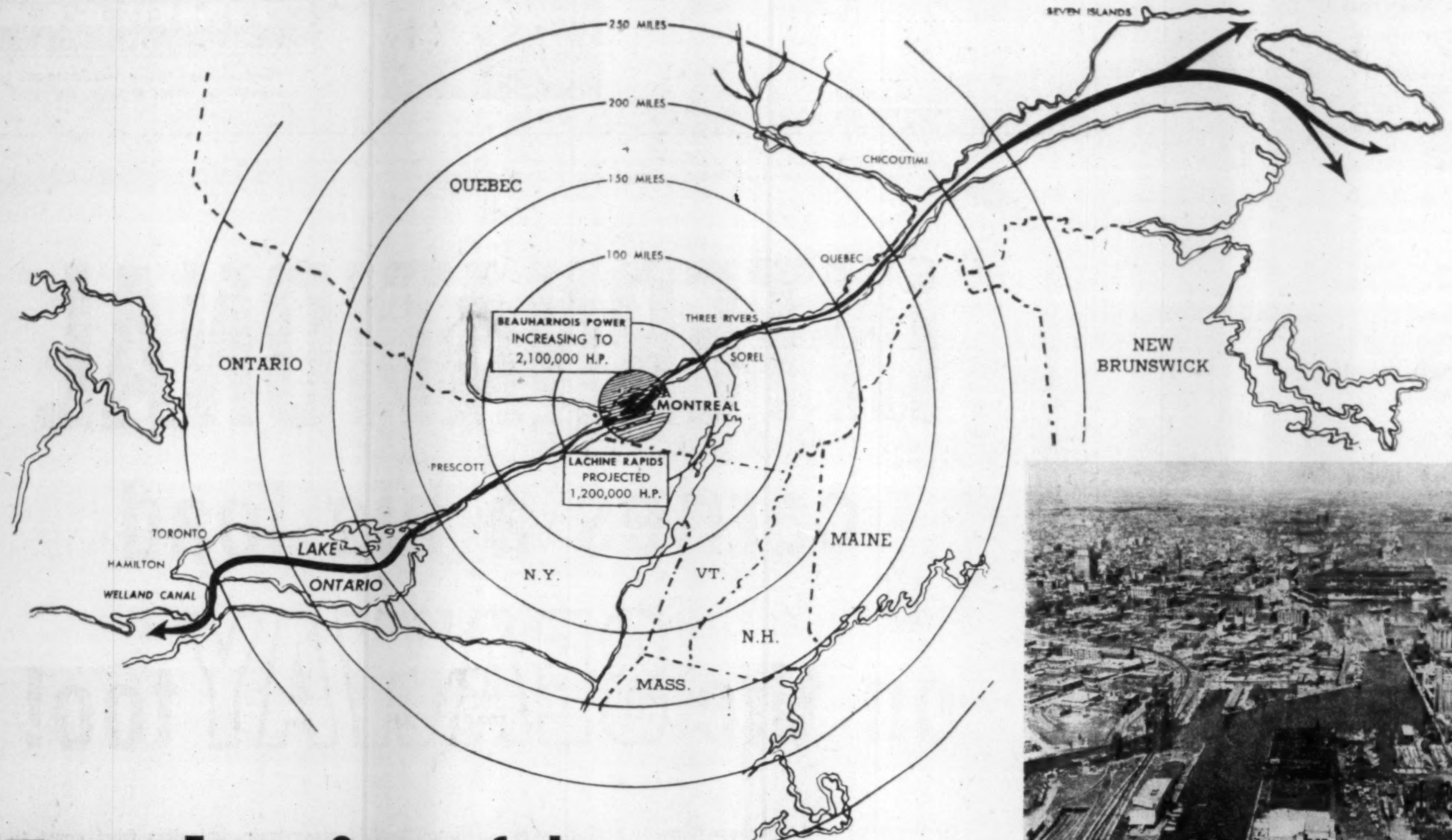


THE PORT OF MONTREAL



Focal point of the
ST. LAWRENCE SEAWAY

Gateway to the St. Lawrence Seaway, the Port of Montreal's facilities will keep pace with growing needs. With Montreal the centre of a giant and expanding network of hydro electric energy, industrial opportunity matches the superb location of the whole Montreal region.

Here's Why the Seaway will benefit Montreal

1. From earliest days Montreal has been a crossroads of travel and commerce. Its unique geographic location has made it the focal point from whence a great network of rail, highway, air and inland water routes span Canada from one ocean to another.

   The opening of the St. Lawrence Seaway will consolidate and enhance Montreal's traditional and strategic role as Canada's major Atlantic port and terminus besides opening up an enlarged avenue of commerce to and from the inland waters of the Great Lakes and the Canadian West.

2. While the Montreal Region is the Port of Montreal's best customer (the greatest percentage of the commerce moving through the Port originates in or is destined to the Montreal Region) its function as a national port for the trans-shipment of goods to and from all parts of Canada will increase with the completion of the Seaway.

3. Already the largest grain shipping port of the world, the 27-foot depth of the Seaway will make it even greater. Large upper-lakers will discharge their cargoes direct at Montreal elevators thus increasing the volume of ocean grain trans-shipped at Montreal.

4. Similarly, the 35 foot depth of the St. Lawrence Ship Channel between Montreal and the Atlantic enables fast passenger liners and the world's largest cargo liners and tankers to manoeuvre easily and safely between the open sea and Montreal's extensive and expanding harbour area.

5. Frequency and diversity of sailings to and from all parts of the world, fast and efficient port handling, the fact that Montreal is two days nearer to the ocean, as well as other considerations — all of which find reflection in shipping time and shipping costs — means savings to shippers and better service to consignees. It is such considerations that establish the Port of Montreal as Canada's Number One passenger and cargo terminal and trans-shipment centre.

6. Confident of the continuing dynamic growth and development of Canada and particularly of the St. Lawrence Valley with its vast resources of forest and mineral wealth and hydro electric power, the Montreal Region is proud of the great and expanding role which the Port of Montreal is destined to play in the economy of the nation — all added to by Montreal's superb location as the focal point of the St. Lawrence Seaway development.

CONCORDIA SALUS

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for facts and figures, write:

ST. LAWRENCE MUNICIPAL BUREAU of the CITY OF MONTREAL

A civic bureau established to promote and develop the Port and Region of Montreal

523 DOMINION SQUARE BUILDING, MONTREAL

The Financial Post

Vol. LI | Member of Audit Bureau of Circulations | Publication Office: Toronto, August 3, 1957 | Twenty Cents an issue, Six Dollars a Year | No. 31

Where the 'Big Ditch' Starts

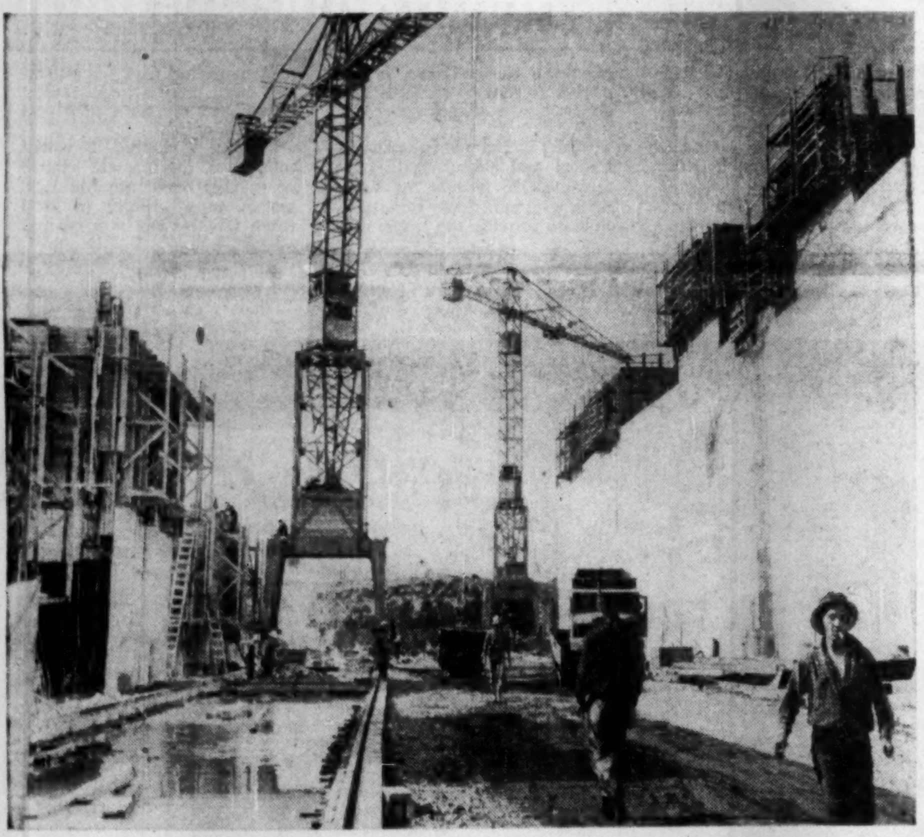
THE Seaway begins 1,000 miles from the sea, at Montreal. Great bulk carriers, tankers and deepsea merchantmen ("salties" as the rivermen call them) will enter the waterway in this vast approach opposite the city.

Here is the keyway to the Seaway.

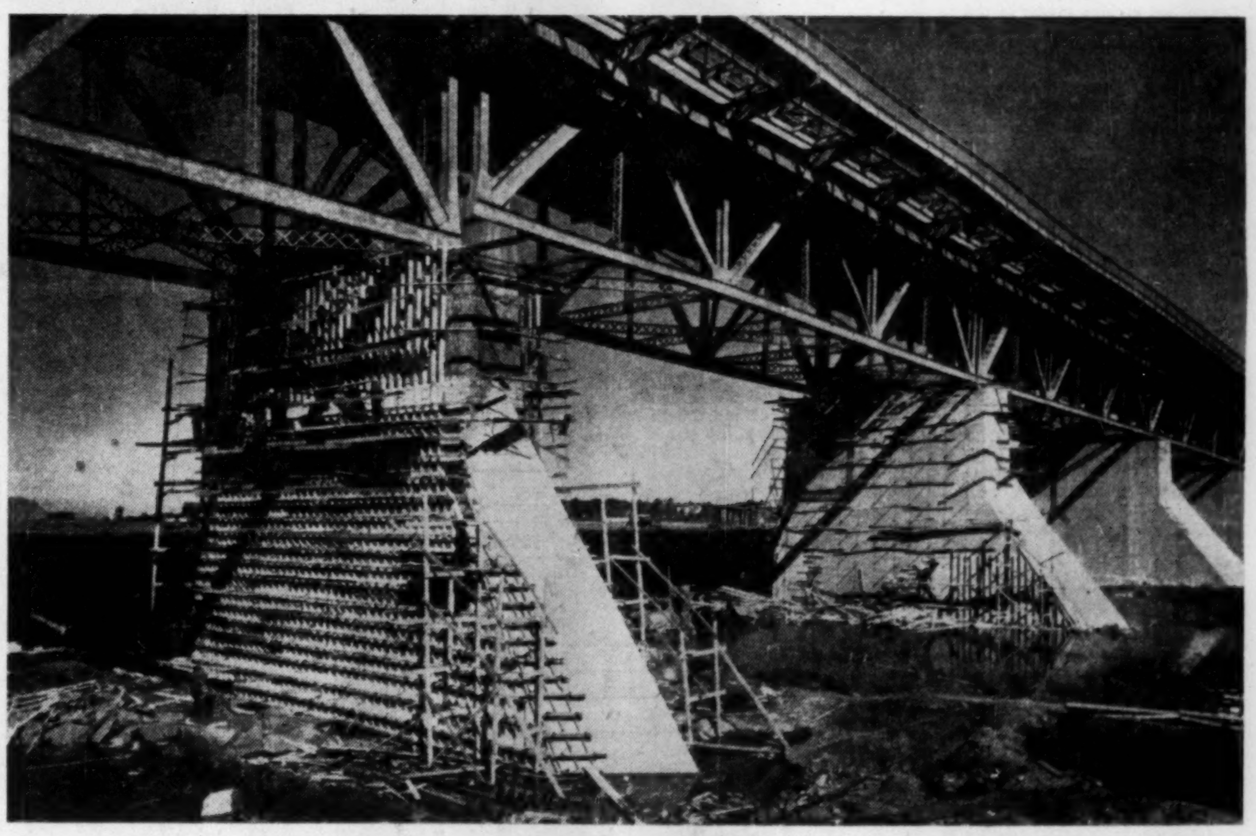
Ships will steam into the channel beneath Jacques Cartier Bridge, and then under Victoria Bridge. They will enter the first lock at St. Lambert, rising 15 ft.

Seven miles of channels lead to the Cote Ste. Catherine Lock, with a lift of 30 ft. The ships will steam through channels to Lake St. Louis and on to the west.

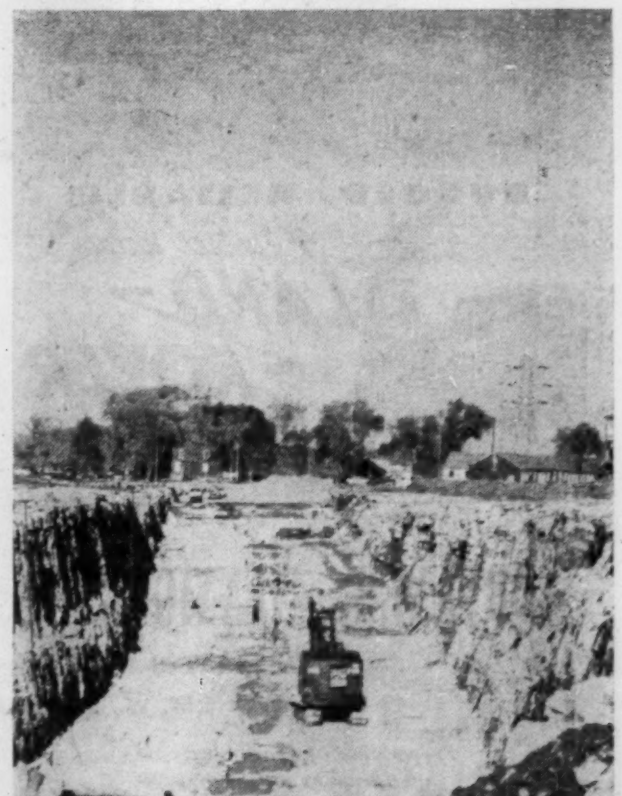
This part of the project is all-Canadian.



SPANS of the Jacques Cartier Bridge will be raised from 30 ft. to 50 ft., to clear masts of ocean ships. Limiting height here will be 120 ft. Bridge piers (right), between which ships will pass, have been reinforced. Lock walls and cranes tower high above workers in the Cote Ste. Catherine Lock (left), rapidly nearing completion. Lock is 80 ft. wide, 768 ft. long.



SHIPS will moor alongside the approach wall to the St. Lambert Lock (left). First concrete was poured last year. The lock itself is out of the photo to the left. An open cut through rugged sandstone (right) will carry a four-lane highway tunnel beneath the Lower Beauharnois Lock, near Melocheville, Que. The lock is being built at right-angles to the tunnel. This lock and its twin, the Upper Beauharnois, will lift ships 85 ft., the difference between Lake St. Louis and Beauharnois Power Canal.



Toronto

There's 'Seaway-Fever' in the Air

By ERNEST B. GRIFFITH
General Manager,
Toronto Harbor Commissioners

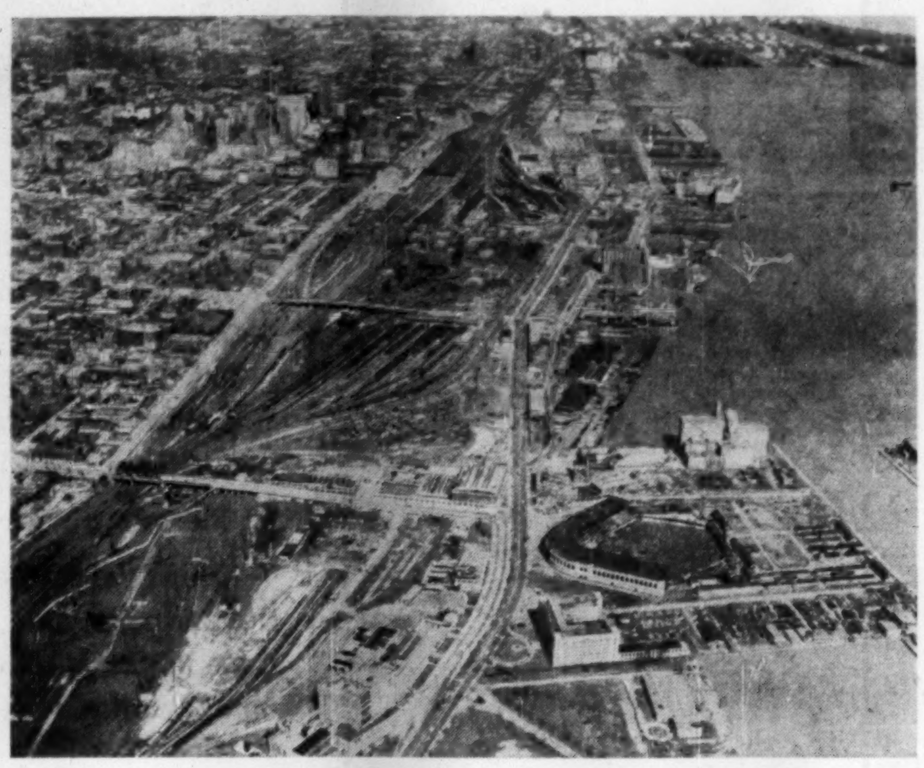
New industry locating in the Metropolitan Toronto area with the intention of utilizing the new St. Lawrence Seaway is an indication of the general spirit in this mushrooming area.

Needless to say, the Port of Toronto which serves the richest industrial area in Canada, is taking steps to meet the challenge of the future.

Along with the fog signals at the Western Channel, the clanking of busy pumps is heard today as dredging of the channel and its approaches goes on to provide a depth comparable to that of the new Seaway.

This deepening of the channel goes hand in hand with a program of terminal expansion, an expansion which is not only required for the future trade but will be immediately utilized for the fast growing overseas business.

Already Marine Terminal No. 11, a modern $1 million structure which was finished a few years ago is showing signs of saturation as business continues to increase.



TORONTO: Port for a heartland.

Contracts have already been let for the foundation and steel work and the new terminal is planned for operation by the spring of 1958.

Its location is at the 26-acre dock site around which the federal government recently constructed a dock wall.

The first of four, or possibly five, new structures to be located there will be slightly different in shape but will follow closely in general design Marine Terminal No. 11.

A terminal width of 200 ft., is now considered of maximum efficiency. A few years ago a 150-ft. width was the accepted figure but strides made in the improvement of mechanical handling equipment makes the greater width a proper one.

It also has an advantage in permitting additional terminal construction on this pier.

Further facilities for customs examination will again be provided in the new terminals in order to maintain the speed and efficiency which this feature brought about at Pier 11.

Better Utilization

While preparing available dock sites for the Seaway business, the Commissioners' Property Department surveyed existing berthage to ensure maximum use of those piers already in use.

This survey showed that on the whole the users are moving sufficient cargo across the docks to justify their business being located on the waterfront; in a few instances, however, this was not so. Talks were held with some of these to plan for the best interests of the port.

It is expected that these companies will either swing to marine transportation or eventually vacate the dock properties to make way for those who will use the waterfront land to the fullest.

Accent on Shipping

With Seaway fever in the air, the accent has been on ocean shipping and its future possibilities.

The port of Toronto, however, will depend to a great extent on lake shipping and therefore has not lost sight of the fact that facilities must be provided for this branch of the shipping industry.

In addition the new Seaway canals open greater space for Canadian coastal trade.

Canada Steamship Lines has recently completed one of the largest lake package freighters in the S.S. Fort Henry.

New and larger coal vessels are bringing increased tonnages of bituminous from U. S. ports to stockpile on the Toronto waterfront.

At one time Toronto received large shipments of petroleum products and shipped out much smaller quantities.

With the advent of the pipeline the picture changed and it was felt that this business would diminish rapidly.

Recent events, however, have indicated to the contrary. The import and export trade have drawn closer together as practically the same tonnage is now moving through the port.

Indications from the oil industry are that this trend will probably increase as the years go by.

The movement of grain from the twin cities at the head of the lakes to Toronto has increased and apparently is expected to grow even larger. A turnabout at this port of some of the larger ocean vessels following the 1959 Seaway opening could well mean a demand for bottom cargo of grain.

Anticipating this new business, one local elevator has already installed a new type loading spout which will permit a much faster turnabout for the vessels in order to encourage this business.

The question of gantry crane equipment on the piers has been under study for four or five years. While on visits to this port, the owners of overseas shipping lines were questioned as to the advantage of placing gantry cranes at Toronto piers.

Without exception, they stated they would at present prefer to use their own ship's gear and would supplement it only when the ship's gear was unable to cope with the lift.

Thus it was that while provision was made at the piers for the erection of gantry cranes, if required, the port has refrained expending money on superfluous equipment.

While the lifting capacity of the ship's gear has been increased on the more modern ships, there still is a maximum weight which they can handle and it is then that the land based or floating lift is called in to supplement the ship's equipment.

In Toronto there are several firms who supply land based equipment which has proven entirely adequate for lifts ranging from 10 to 20 tons. For heavier lifts, the Toronto Harbor Commissioner's marine lift which has a 25-ton capacity has been utilized.

However, there have been instances when heavier shipments have had to be routed via other ports.

With this in mind, the commissioners conducted a survey of the users of heavy lift equipment and found that approximately 96% of the lifts would be in the 50-ton capacity.

They have on order, therefore, a marine derrick to be constructed and delivered to them this season to handle this particular business.

If the other 4% of the lifts increase in number to the point where equipment with a greater capacity is required, consideration will be given to a permanent shore-based derrick which will handle between 100 and 200 tons.

The necessity for this last installation should be clarified before 1959 as the shipping business increases.

Trade Promotion

The personal contact work undertaken a year ago by the Commissioners' new department, the Trade Development Department, is now starting to bear fruit and industry consults the staff frequently regarding rates and routing. As a result of this solicitation, a number of industries have discovered that it was to their advantage to route business through the port.

The swing to this routing is clearly indicated by the increased tonnage that is moving in 1957 as compared with the same period in 1956.

An additional five lines are operating this year from overseas points to the port of Toronto. These are **Cunard, Furness, Canadian Pacific Steamships, Head Line** and **Donaldson Line**; all are well established concerns whose decision to enter the Great Lakes trade was only made after careful study.

The **Grace Line**, with a proposed routing to the Caribbean from the Great Lakes, is expected to make the sixth line operating through the port this year.

With increased interest in import and export, with new terminals to handle the business, with additional steamship lines to provide the ships, it is fully expected that the end of 1957 will find a new record established for both lake and ocean shipping.

Barring a change in world conditions, this growth should be carried over into the 1958 season to a climax in 1959 when the Seaway is a reality.

ERNEST B. GRIFFITH, 40-year-old general manager of Toronto Harbor Commissioners, joined the organization as executive assistant 17 years ago.

A native of Toronto and a B.Com. graduate of the University of Toronto, he became secretary to the commissioners at the end of the war when he returned after service with the Canadian Army. Five years later, he was appointed to his present post.

He is a member of the Bar of the Province of Ontario, and a Canadian director of the American Association of Port Authorities.

Brockville

High Hopes For Shipping

By F. J. E. ROGERS
Executive Secretary, Brockville Chamber of Commerce

Although no specific steps have been taken for expanding the Port of Brockville, the "City of the Thousand Islands" still has high hopes that ocean travelling ships will be using facilities there.

Many of the local industries, however, which the port used to serve, are now finding that other means of transportation are proving adequate.

A number of sites were considered for potential dockage and the Federal Government promised assistance when the need could be ascertained.

The Chamber of Commerce has been quietly conducting a survey to see if any of the outlying centres would use the Brockville port for shipping their foreign trade.

At this point they report not too much success.

The **CPR** is the largest dock owner and its facilities are shown in the accompanying photograph. There are several coal and oil companies with extensive dockage which is usable by other concerns.

Brockville has long been considered one of the finest tourist centres in Eastern Ontario. Situated between the Rideau Lakes, noted for its fishing, and the Thousand Islands, unsurpassed in beauty, Brockville is a shopping mecca for many travellers.

When the new International Bridge is completed between Ogdensburg, N.Y. and Prescott, Ontario, Brockville will be midway between two very international bridges and will have U.S. traffic coming from both east and west.

Many tour boats use the facilities of Brockville port. Cabin cruisers are now finding adequate water and power facilities for stopovers. Industrial inquiries are still coming frequently.

The big question is:

Will the Seaway transform a scenic community into an industrial or semi-industrial one? The Town Office reports that three industrial representatives visited Brockville recently on a single day.

Industrial Growth

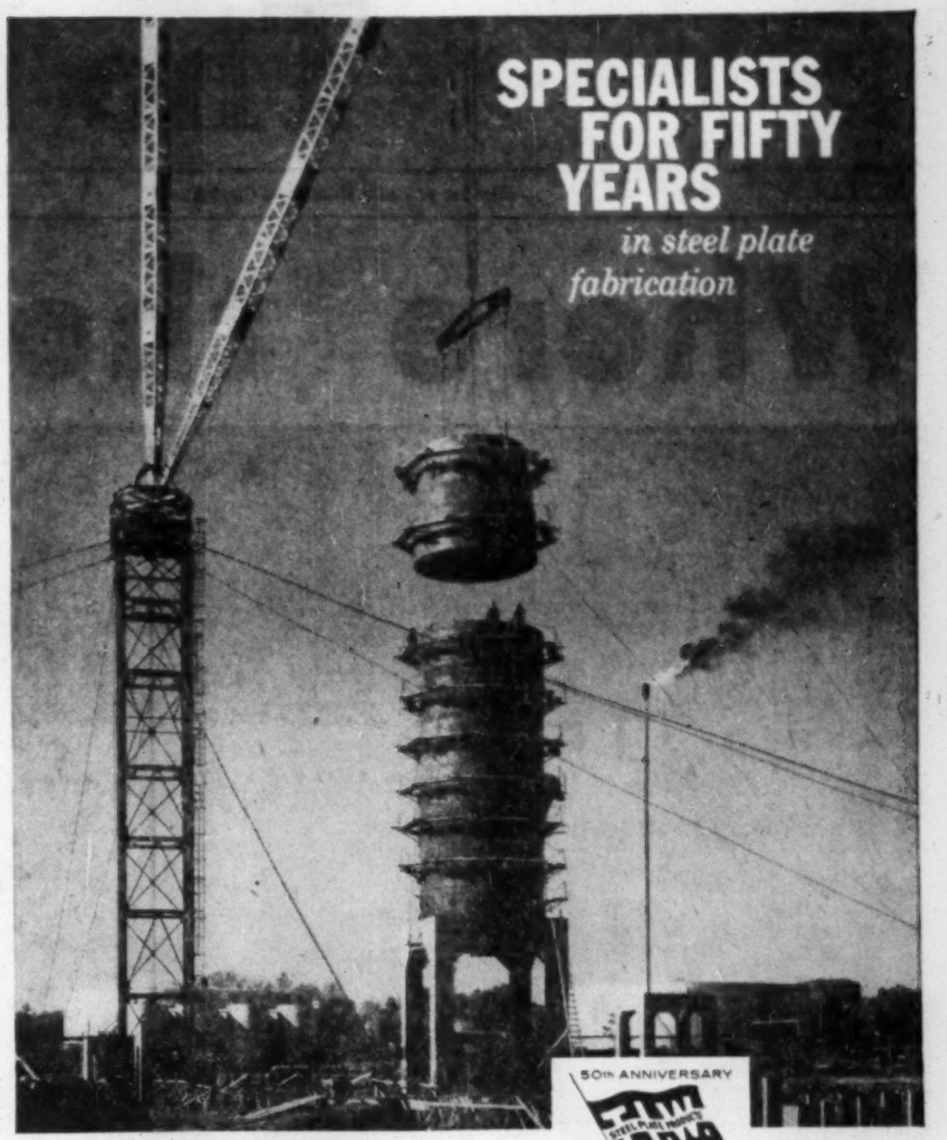
The outlook is that the Seaway will produce an industrial growth pattern, with a new emphasis on industry in relation to tourism.

Within the past few years, these projects have been undertaken:

—Brockville took over new land to accommodate 700 homes plus industrial projects.

—The town undertook projects totaling more than $1.4 million; these included an extension to the general hospital, a large memorial centre, public schools.

In past years, Brockville has traditionally been a producer of copper wire, telephone assembly, ladies' and men's hats, condensed milk, starch products, medicines, school desks, hammers, heavy tools, marine engines and grinding wheels.



and in all those years just one objective. Some companies have added different lines to their main occupation but we have stuck to the design, fabrication and erection of steel plate and other metals, as they were developed. The result has been leadership in our field so we intend to continue our policy of specialization. Send us your blueprints or problems for designs or quotations.

THE TORONTO IRON WORKS
LIMITED
TORONTO-MONTREAL
IN WESTERN CANADA-T.I.W. WESTERN LIMITED, EDMONTON, ALTA.
DESIGNERS · FABRICATORS · ERECTORS

Top favourite for tough going

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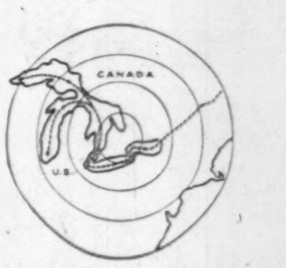

Canada and the U.S. have earmarked over one billion dollars for the construction of the seaway and for power development. Cities on both sides of the border are spending millions of dollars more in anticipation of the increased traffic that the project will bring to both countries.

The Seaway represents an outstanding example of Canadian-U.S. teamwork. In the files of the Bank of Montreal are hundreds of examples of such teamwork between Canadian and U.S. industry. Since 1859, Canada's First Bank has helped U.S. companies establish business operations throughout the country — a fact which has contributed substantially to Canadian-U.S. prosperity and good-will.

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MONTREAL: Gateway to the Seaway.

Montreal
'We'll Be Ready'

"It is ideally placed as a point of interchange for lake, river, ocean, road and rail carriers."

Boom ahead for Montreal?

For years experts have argued whether the Seaway is the threshold to a new surge of activity for Canada's premier port city, or the dreaded bypass that could leave the city and harbor in economic backwaters.

Montreal itself is in no doubt. The Seaway can mean a tremendous new port activity — planners argue — if the port is ready for it.

And ready it intends to be.

This reasoning is being backed by a $57 million construction program instituted by National Harbors Board, the authority responsible for the administration and operation of the port.

The additional facilities and improvements to the existing harbor works represented by this major construction, the board says, will enhance Montreal's reputation as Canada's major port, one of the world's great harbors and the world's greatest grain export centre.

Montreal thinking runs like this:

The port is located 1,000 miles inland from the Atlantic, at the end of the 35 ft. deep-water navigation and at the beginning of the Seaway and the existing St. Lawrence Canal System.

Thus, it is ideally placed as a point of interchange for lake, river, ocean, road and rail carriers.

The port, stretching 16 miles along the south side of the island of Montreal, has wharves and piers which provide 112 berths with a total berthing length of about 10 miles.

A $17 million construction program now underway will increase the number of berths to 131 and the berthing length to approximately 12 miles within the next three years. This program includes the following construction:

—Sections 50-53 — 1,600 linear ft. of wharf, to be completed this year.

—Sections 58-61 — 1,500 linear ft. of wharf, to be completed this year.

—Sections 104-110 — 1,540 linear ft. extensions to oil wharves, part of which is already completed.

—Sections 53-56—800 linear ft. of wharf for general use, in addition to 1,800 ft. for grain loading and unloading berths.

—Sections 62-65—1,600 linear ft. of wharf.

—Sections 94-96 — 1,350 linear ft. of wharf.

—Section 15—grain jetty 1,740 ft. in length.

Montreal harbor is equipped at present with 32 transit sheds with a total floor area of 2,450,000 sq. ft.

Nineteen of these sheds are 2-storey structures. Two additional sheds are now under construction and will be in service later this year. Another shed 500 ft. by 150 ft. and a very large shed 1,500 ft. by 100 ft., are planned for the near future.

This program will add 375,000 sq. ft. to the existing transit sheds floor area, an increase of 15%.

No Challenger

No other port has yet seriously challenged Montreal's status as the world's major grain export port.

With its four grain elevators of 15,162,000 bu. storage capacity, 27 grain loading berths, 10 marine legs at six unloading berths, and a daily receiving and shipping capacity of 1,250,000 bu., it handles a large percentage of Canada's annual grain exports.

The quantity shipped in 1956 was 135 million bu. This was about the average for the last five years.

However it is considerably below the record 1928 figure when 211 million bu. left Montreal. Reason is that in those days Montreal handled an enormous amount of U.S. wheat, in that year 65 million bu.

Pressure on Washington brought a stop to that trade. Some planners are hoping now that with the Seaway—a joint Canadian-U.S. venture anyway—a proportion of U.S. grain will once again be shipped through Montreal.

Hoping for this, and a general improvement in the grain shipment picture, the planners have additions and improvements now under contract or planned for the immediate future that will increase the grain storage capacity by no less than 44% and both the unloading and loading capacity by about 80%, at a cost of $27 million.

A new five million bu. elevator will be built as well as a 1.6 million bu. addition to one of the elevators.

Four berths will be provided and equipped for rapid unloading of the large lake vessels which will deliver grain from the Lakehead to Montreal upon completion of the system.

Each berth will be equipped with two marine legs. The capacity of each marine leg at two of the berths will be 36,000 bu. an hour and at the other two berths 27,000 bu. an hour.

In addition to the regular marine legs, a contract has been awarded for installation of pneumatic grain handling equipment at one of the berths.

This will be the first installation of pneumatic unloading equipment in Canada and, used in conjunction with marine legs, it is expected further to speed up unloading operations.

Three new berths for rapid loading of ocean carriers will also be added to present facilities.

These additions and improvements have necessitated construction of new grain conveyor galleries and major renovations to the present grain elevator system.

Dredging, Too

Dredging of value $7.5 million is also being carried out. This will provide approaches to the new wharves with a depth of 35 ft. at extreme low water and will enlarge the turning basin in the upper harbor to accommodate passenger liners and large lake vessels.

Other assets of the port are a first class cold storage plant of three million cubic ft. capacity; a 75-ton floating crane; a set of shear legs with a lifting capacity of 120 tons; and six locomotive cranes and a diesel caterpillar crane, all of 30 tons capacity.

A 62-mile terminal railway, with eight diesel electric locomotives of 660 hp each, provides rail service to practically all berths.

The railway is capable of handling 1,500 cars to or from the wharves every day.

Last year was a good one for Montreal harbor. A record 18.5 million tons of water-borne cargo, about evenly divided between imports and exports, was handled. The total number of vessel arrivals was 5,685 of which 2,248 were ocean-going ships. The number of passengers landed and embarked was 208,667 a new record for the harbor.

From these figures it is clear Montreal is playing for big stakes. The prizes can be rich, but if Montreal's Seaway thinking backfires there is plenty to be lost to the hungry ports waiting up the river.

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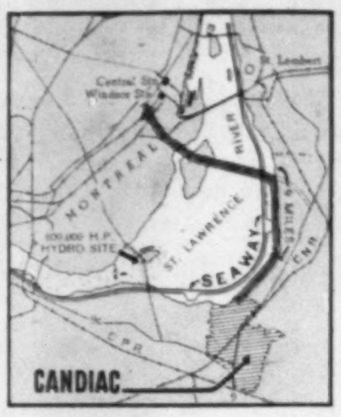

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Canadian General Electric Co.	8 generators 14 230-kv. circuit breakers 7 115-kv. circuit breakers
Canadian Westinghouse Co.	8 generators 13 — 86,000 kva. transformers
Brown Boveri (Canada) Ltd.	Switchgear. Four 3,000 kva. station service transformers
Eastern Power Devices	14.4 kv. isolated phase bus
Phillips Electrical Co.	230 kv. cable circuits
CEMCO Switchgear Ltd.	Station service metal-enclosed switchgear
Taylor Electric Manufacturing Co.	600-v metal-enclosed bus
English Electric Co. of Canada	16 turbines and governors. Control, metering and relaying equipment
Dominion Bridge Co.	Two 75-ton erection bay cranes. 1 300-ton gantry crane. 1 90-ton gantry crane
Richards-Wilcox Canadian Co.	Vertical lift, gantry crane and truck entrance doors
J. & E. Hall Ltd.	Elevators
Iroquois Constructors	Supplementary electrical equipment
POWERHOUSE	
Iroquois Constructors Ltd.	Construction of powerhouse—general contract
Mannix-Raymond Ltd.	Cofferdams and dewatering
Canada Cement Co.	Cement
Steel Co. of Canada Burlington Steel Co.	Reinforcing steel
C. A. Pitts General Contractor Ltd.	Aggregate and sand
Dominion Structural Steel Ltd.	Structural steel
Dominion Structural Steel Ltd. Ardelt Industries of Canada Ltd.	Headworks and tailrace steel checks and sills
Standard Steel Construction Co.	Steel stoplogs for headworks and tailrace
Dominion Bridge Co.	Installation of headgates, hoists and embedded parts and two gantry cranes
Canadian Vickers Ltd. Standard Steel Construction Co.	Tailrace steel pier nosings and footings
Canadian Vickers Ltd.	Ice sluice dam gates
John T. Hepburn Ltd. Dominion Road Machinery Ltd.	Trash racks — powerhouse headworks
REHABILITATION OF COMMUNITIES	
Horton Steel Works Ltd.	Water tanks — New Iroquois, New Towns 1 and 2, Morrisburg
Beaver Construction Co.	Sewers and watermains and house services for Iroquois and New Town No. 2
John Susin Construction Co.	Sewers and watermains and house services, New Town No. 1
J. Entwistle	Water and sewage pumping station, New Town No. 1
Bedford Construction Co.	Sewage treatment plants, Iroquois, Morrisburg, and New Town No. 2
Dominion Structural Steel Ltd.	Structural steel for Iroquois and Morrisburg shopping centres
Schwenger Construction Ltd.	Sewage treatment plant, New Town No. 1
Canadian Dredge and Dock Co.	Protective dyke at property of Canada Starch, Cardinal
J. W. Lence Co.	Sheet steel piling for dyke
St. Lawrence Construction Ltd.	Sewers, watermains and house-services — Morrisburg
Harvey Construction Co.	Street paving — Iroquois
CNR RELOCATION	
Sir Robert McAlpine & Son (Canada) Ltd. C. A. Pitts General Contractor Ltd. Iroquois Constructors Ltd.	Subgrade
Harvey Construction Co.	Ballast
Mannix Ltd.	Track laying and ballasting
C. A. Johannsen & Sons, Ltd. J. Entwistle	Railway stations. Iroquois, Morrisburg, Ingleside, Long Sault, Cornwall
Dominion Bridge Co.	Supply and erection of steel railway bridges
DYKES	
C. A. Pitts General Contractor Ltd.	Cornwall dyke closure and canal diversion
Atlas Construction Co.	Cornwall dyke
Canadian Vickers Ltd.	Steel stoplogs, sills and checks
CHANNEL IMPROVEMENTS	
C. A. Pitts General Contractor Ltd.	Galop Island
Canadian Dredge & Dock Co.	Chimney Island
Iroquois Constructors Ltd.	Iroquois Point
MISCELLANEOUS	
Cementation Co. (Canada) Ltd.	Project office building, Cornwall
Macamic (Ontario) Ltd.	Improvement of nine-mile road and railroad siding

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BLACKWOOD HODGE

HAMILTON: Set for the Seaway.

KENNETH A. GRANT, manager, Hamilton District Industrial Commission, was born and educated at Port Arthur.

Before the war, Mr. Grant was manager, Superior Airways Ltd., Fort William, and later, assistant to the chief inspector, Canadian Car and Foundry, Fort William. During the war he was a captain overseas with the Canadian Army.

After leaving the armed forces, Mr. Grant became vocational training field representative for the Education Department. In 1949 he was engaged as secretary-manager of the Port Arthur Chamber of Commerce, joining the Canadian Chamber of Commerce in 1952. Two years later he became manager of the Ontario Chamber of Commerce and this year moved to his present position.

Hamilton

Expands with Seaway

By K. A. GRANT
Industrial Commissioner
Hamilton District

In 1956, census figures revealed that Hamilton had replaced Vancouver as the fastest growing of Canada's eight largest metropolitan areas.

The average annual rate of increase during the period from 1951 to 1956 was 5%, with population in the metropolitan area reaching 325,000.

Much of this growth can be directly attributed to the mushrooming manufacturing industry which has broken all previous records in the expansion of existing organizations and in the acquisition of a substantial number of new plants.

One of the most significant developments of the year was the annexation of 2,400 acres of Saltfleet Township — the plan zoned 600 acres for heavy industry and set aside a further 219 acres for light manufacturing purposes.

In the spring of 1957, the Hamilton District Industrial Commission under the leadership of T. A. Rice, vice-president, **International Harvester,** embarked upon an ambitious program to acquire the support of a large group of municipal organizations throughout the Hamilton market area.

Already 15 municipalities have freely offered financial support to the program of the Commission, and plans are under way for an aggressive promotional campaign for the area at large.

Several significant announcements were made during 1956 with respect to the location of new industry in the area and a completely new trend toward the establishment of basic chemical manufacturing has become apparent. Announcements by **North American Cyanamid Co.** and **Dominion Tar and Chemical Co.** suggest that a whole new range of chemicals will soon be manufactured in Hamilton.

Basic Steel

Hamilton's two basic steel industries, **Steel Company of Canada,** and **Dominion Foundries and Steel,** have both embarked on extensive capital construction programs, and the year just passed has seen the expenditure of approximately $100 million in the development of the steel industry alone.

The adjoining municipality of Nelson Township has enjoyed marked expansion in industry over the last 12 months with several manufacturing organizations locating on Hamilton's perimeter.

These include: **Canada Iron Foundries,** which has announced plans to build a $7-million plant for the manufacture of cast steel wheels; International Harvester, which has started construction of a $15-million parts warehouse; and **Hendershot Paper Products** which is constructing a new plant.

Throughout this period of rapid development, the Hamilton Harbor Commissioners have been bending every effort to improve and expand harbor facilities in order that full advantage may be taken of the natural benefits which will accrue to this area as a result of the completion of the St. Lawrence Seaway and power project.

Hamilton's fine natural harbor will be in a position to give the best distribution facilities on the Great Lakes and to service the ever-expanding market area around Hamilton.

Here's a list of the various harbor or dock area improvements under way or contemplated:

Wellington Street Wharf Extension:

This work consists of the extension northward of Wellington St. Wharf for a length of 620 ft. to the Harbor Headline, and for 725 ft. extending from Wellington St. slip west to HMCS "Star." A pier 50 ft. wide, to extend westward from the northwest corner toward Catherine St. Wharf for 380 ft. is designed with the wharf extension to provide a sheltered basin in front of HMCS "Star" for berthing navy craft.

The second and final stage of the wharf extension is now under construction by the Federal Public Works Department on behalf of the RCN and the Hamilton Harbor Commissioners.

Contractor for this stage of the work is **Canadian Dredge and Dock Co.**

It is expected that the extension will be completed early in the spring of 1958, and the total cost (not including the modern marine freight terminal also to be erected) will reach $2.5 million.

Dredging along the east and north faces will be carried to 27 ft. depth to provide Seaway draft.

Marine Freight Terminal No. 8:

As soon as work on the Wellington St. Wharf Extension is sufficiently advanced to permit installation of the building foundations, construction of Marine Freight Terminal No. 8, to be located on the east side of the extension, will be started.

This terminal will include a spacious transit shed 200 ft. wide by 600 ft. long with covered truck loading dock along the west side, and a two-story office and service building extending the full width of the building across its south end.

Terminal Wharf No. 3:

Placing of rock fill on the site of the shortly to be constructed Bulk Storage Terminal **Wharf No. 3 at Ship St.,** extending from Wentworth to Hilliard Sts., commenced early in April.

This wharf, to be similar to the Wellington St. Wharf Extension, will extend 1,255 ft. to the Harbor Headline along the Wentworth St. face and the over-all width will be 835 ft.

Strathearne Ave. Slip:

Following relocation of the Harbor Headline throughout the eastern harbor area, the first step in constructing a slip at Strathearne Ave. was taken early in April when construction of a retaining dyke along the east side of the projected slip was initiated.

Catherine St. Wharf Extension:

Plans fo the extension of Catherine St. Wharf out to the Harbor Headline and westward toward James St. are under consideration for the near future. Construction of another modern marine freight terminal similar to that to be begun on Wellington St. Wharf extension is planned.

Burlington Skyway Bridge:

Another major development which is rapidly approaching completion is the Burlington Skyway Bridge, over the Burlington Beach sandstrip.

It is anticipated that this structure will be completed early in 1958, and steel erection is well under way at the present time. This bridge should speed traffic into and around Hamilton, thus providing a means of rapid access between the industrial belt on the harbor front and the large markets of the Toronto area and the Niagara Peninsula.

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BONUS OFFER If you buy a new Willys 'Jeep' 4-wheel drive vehicle during the period of the contest, from June 1, 1957 through August 31, 1957 and win the contest, you will receive your purchase price in cash.

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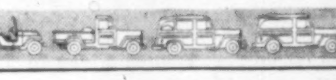
TO ENTER stop in at your local Willys dealer and test drive the FC-150 yourself. Then use your own knowledge in completing the above sentence.



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an EXPLOSION
and a great inland
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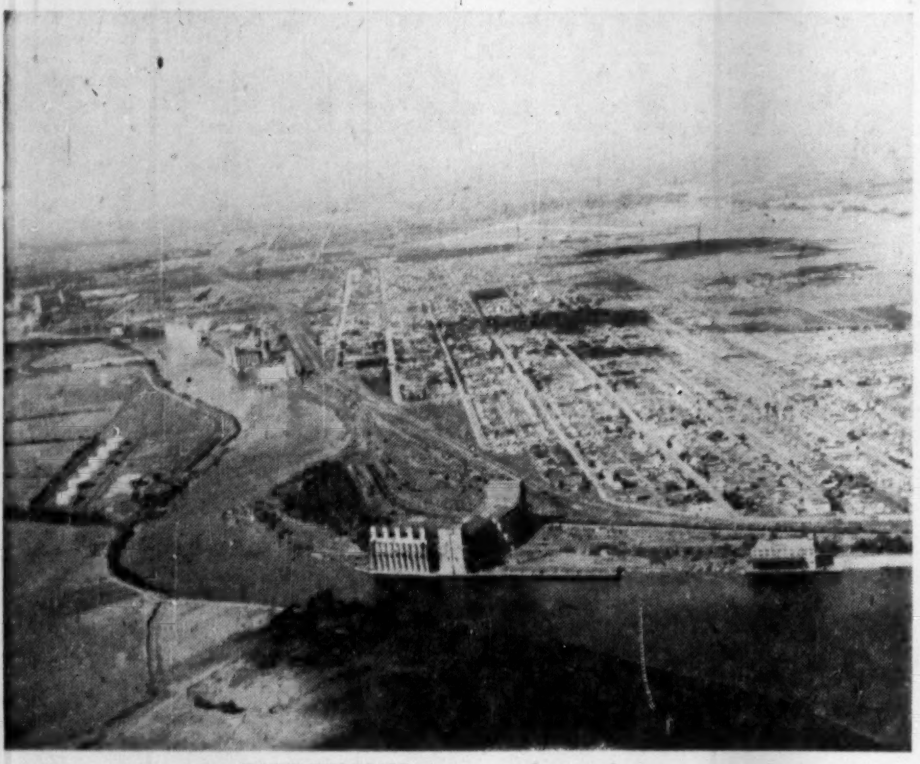
PORT ARTHUR: Ready and waiting.


FORT WILLIAM: A port on the march.

Lakehead

Building New Terminal

By ALEXANDER PHILLIPS
Northwestern Ontario Development Association

An ocean terminal for handling general cargo is envisioned as an early need at the Canadian Lakehead. As soon as sufficient tonnage is seen developing from the St. Lawrence Seaway, such a terminal is considered inevitable.

Who will build it?

J. Murray Fleming, president of **C. D. Howe & Co.**, Port Arthur, one of Canada's top engineers with comprehensive knowledge of the Lakehead ports, said recently:

"There seems no doubt that we will need such a facility in the very near future to handle the traffic offering, in addition to our present facilities.

"I believe it is a function of the freight traffic itself, and the cost of using such facilities is a direct charge on the freight charges, in the same way as they are now with the lake and rail traffic.

"It, therefore, seems reasonable to me that our transportation companies will provide such facilities as soon as they can see a sufficient volume of traffic developing to justify same."

What's Being Done

Here's what some transportation companies say about the Lakehead ports in relation to the Seaway:

Donald Gordon, president, **CNR**:

"The Seaway plan will, it is anticipated, pose problems for the railway all along the route, including a need at a number of points to readjust facilities to meet expected increased demands upon the railway.

"A group of my experienced officers is studying the problem in its entirety now and although it is too early for conclusions to be reached in detail, I can assure you that in this study and the policies which will emerge from it, the Lakehead situation will be thoroughly considered."

N. R. Crump, president, **CPR**:

"While this company has no specific plans for constructing additional waterfront facilities at this time, we are interested in future developments as may be necessary to accommodate traffic requirements and our people are keeping in close touch with the situation."

T. R. McLagan, president, **Canada Steamship Lines:**

"We already have built a new ship, the S.S. Fort Henry, which is bigger and faster than anything else which we now have for the general cargo trade. We are building a sister ship immediately and this should be in operation next year.

"It is our intention to continue to modernize our fleet for these purposes and practical evidence of our intentions can be seen in the building of these two new vessels.

Cargo Terminal

With development of the Lakehead and Northwestern Ontario proceeding at an unparalleled pace, twinport harbor authorities believe that action on a cargo terminal for ocean ships is one of the likely developments of the reasonably near future.

- Known in the past primarily as terminals and shipping centres for grain, these ports now are handling rapidly increasing tonnages of iron ore.
- This year natural gas will arrive from Alberta.
- Three copper, zinc, nickel mines will come into production.
- New pulp and paper and other forest products shipments are assured.
- Huge power projects are under way.

All told, they represent a capital investment of approximately $500 million.

A $4-$5 million enlargement to double capacity of the **Canada Malting Co.** plant at Port Arthur is now under way.

Decision to undertake the multi-million program was made when it became a certainty that a supply of natural gas would be available in this part of Canada before 1958.

Nichols Chemical Co. will build a modern plant on a nine-acre site at Port Arthur for the production of liquid aluminum sulphate (liquid alum) to serve the pulp and paper industry of Northwestern Ontario. It will be in production by fall.

Canadian Husky Oil, now producing 4,000 barrels per day from its Fort William refinery, announces a major expansion program for its Fort William waterfront property. Lawrence W. Lee, executive vice-president, says contracts have been let for additions to the plant which will cost nearly $700,000. Construction will start next fall.

Units to be added include a new dieselformer, storage tanks and expanded facilities for handling crude oil and products. The three new storage tanks, each capable of holding 1.4 million gallons, and the new handling equipment will permit Husky to achieve a better balance in year-round operations.

Supercrete (Ontario) Ltd. was established this year at the Lakehead by merging and expanding two Fort William and Port Arthur plants and purchasing an industrial, trackage-served site between the two centres for location of a building products plant.

Shipping warehouse facilities at **Great Lakes Paper Co.**, Fort William, are increased in the giant $35 million expansion program at the harbor front mill. New customers added by the company will receive water shipments of newsprint from the modernized mill terminal on the Kam River.

Additional newsprint tonnage will develop at Red Rock, lakeside newsprint town 60 miles east of Port Arthur, where **St. Lawrence Corp.** is embarking on a second expansion program to cost $18 million.

At nearby Nipigon, **Northern Plywood Ltd.**, this year brought into production its plant to manufacture poplar plywood panels. The plant has access to the Seaway, for future shipments.

Western Grocers this year opened its new warehouse and distribution centre at Fort William.

Prospects of the nucleus of a petrochemical industry are enhanced by the proposal of **Canadian Hydrocarbons Ltd.**, Winnipeg, to build a pipeline from Alberta to the Lakehead to carry liquefied petroleum gases, mostly propane and butane. The Federal Government already has granted a permit for the project.

The company proposes to transfer gases from the pipeline to tankers at the Lakehead for shipment to the Sarnia and other chemical industry centres but its availability at the Lakehead would offer a big potential.

ALEXANDER PHILLIPS, general manager, Northwestern Ontario Development Association, was born in southern Ontario (Milton, Halton County), but he's a bred-in-the-bone "Nor'wester" who has lived at the Lakehead since childhood.

He became a cub reporter on the Fort William Times-Journal. Promoted boss of the city room, he occupied for a 10-year period during and after World War II a position almost unique in Canadian journalism.

He was a one-man desk, handling solo the jobs of copyreader, telegraph editor, city editor and news editor on an expanding city daily.

He was appointed general manager of the Northwestern Ontario Development Association, formed in 1955 to spur the area's economic growth.

Among his first-year tasks was the compilation of a 25,000-word brief on the northwest for submission to the Gordon Royal Commission.

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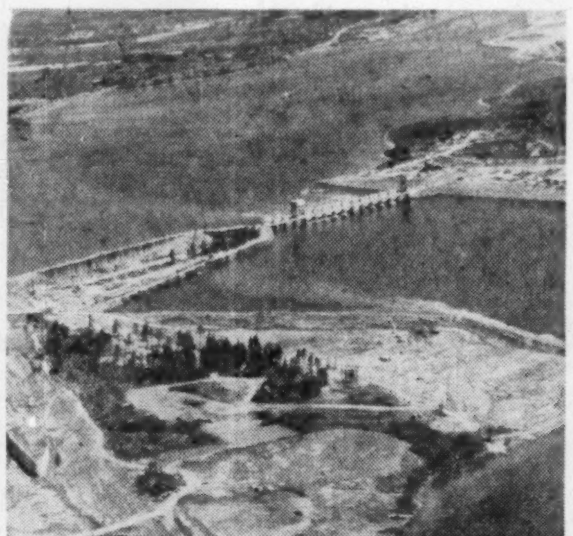
Go Hand in Hand


IROQUOIS DAM—This structure will stretch across the St. Lawrence river in the vicinity of Iroquois and control the outflow from Lake Ontario.

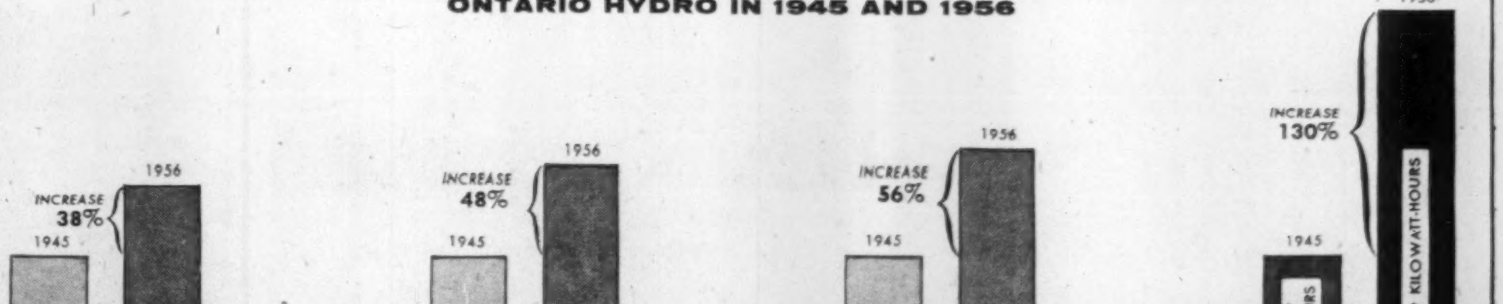
LONG SAULT DAM—This structure will stretch from the western end of Barnhart Island to the United States mainland. Together with the powerhouse dam structure, it will serve to impound the waters of the lake which will be created for the generation of power.

POWERHOUSES—The Ontario and New York power-houses span the St. Lawrence between the eastern end of Barnhart Island and the Canadian shore. Installed capacity is 1,640,000 kilowatts and Ontario Hydro's share is 820,000 kilowatts.

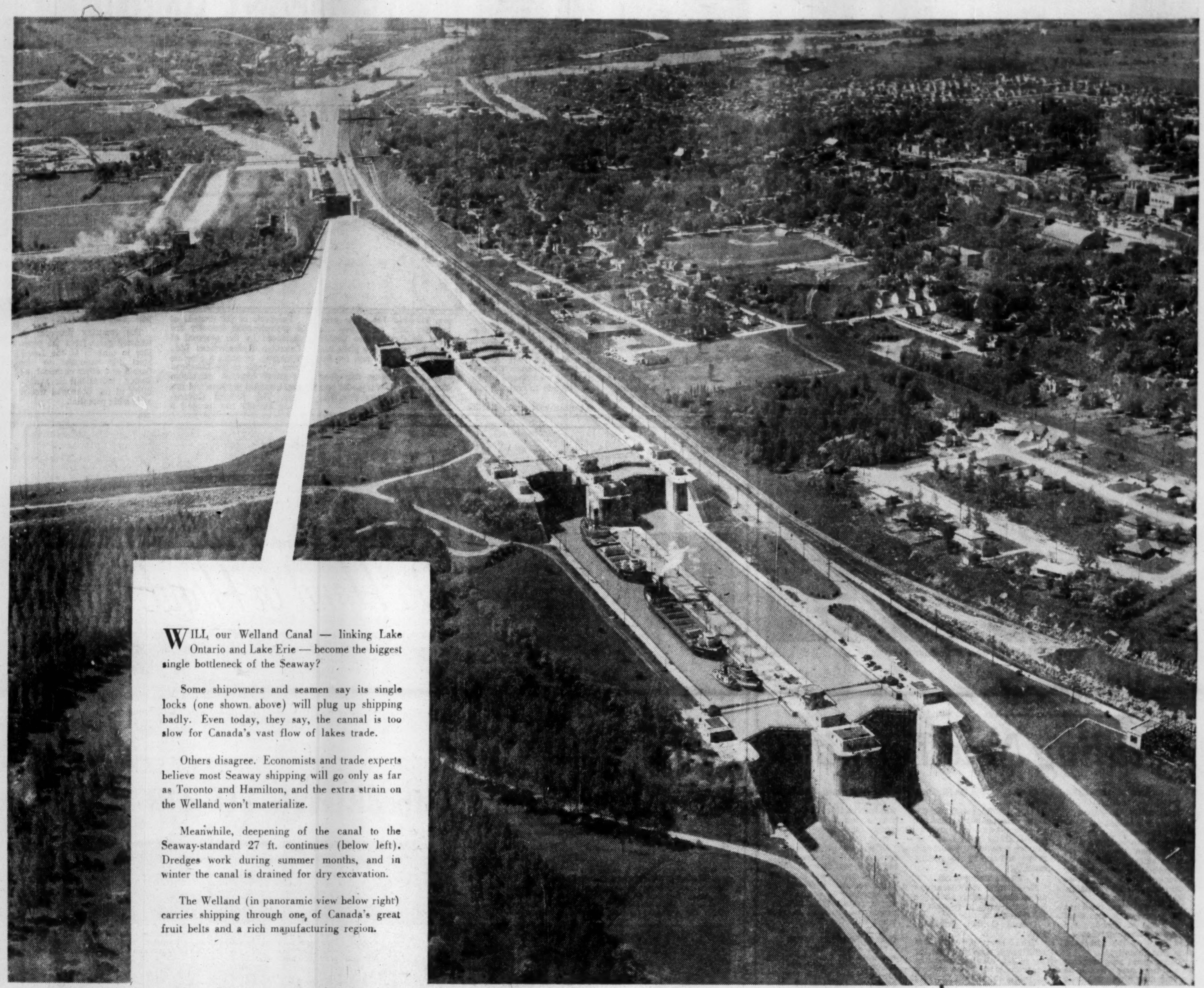
The Robert H. Saunders-St. Lawrence Generating Station (820,000 kilowatts) is the last major hydro-electric source in Southern Ontario. It is the sixteenth of twenty-two new power sources in Ontario Hydro's continuing expansion program, which commenced in 1945. By the end of 1960, the total increase in dependable capacity will be 236%. More power for better farming, greater production and better living in Ontario.

ONTARIO HYDRO

ECONOMIC GROWTH OF ONTARIO AND ELECTRIC ENERGY SUPPLIED BY ONTARIO HYDRO IN 1945 AND 1956



Canada's Contentious Canal



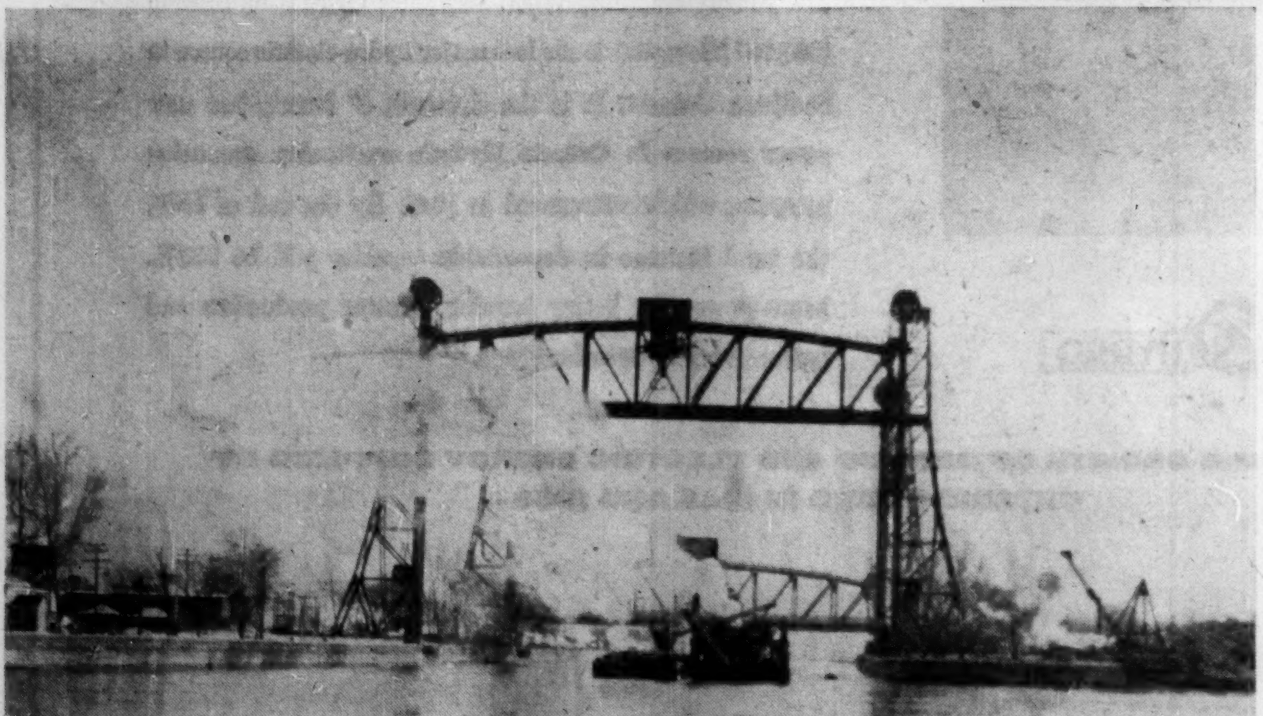
WILL our Welland Canal — linking Lake Ontario and Lake Erie — become the biggest single bottleneck of the Seaway?

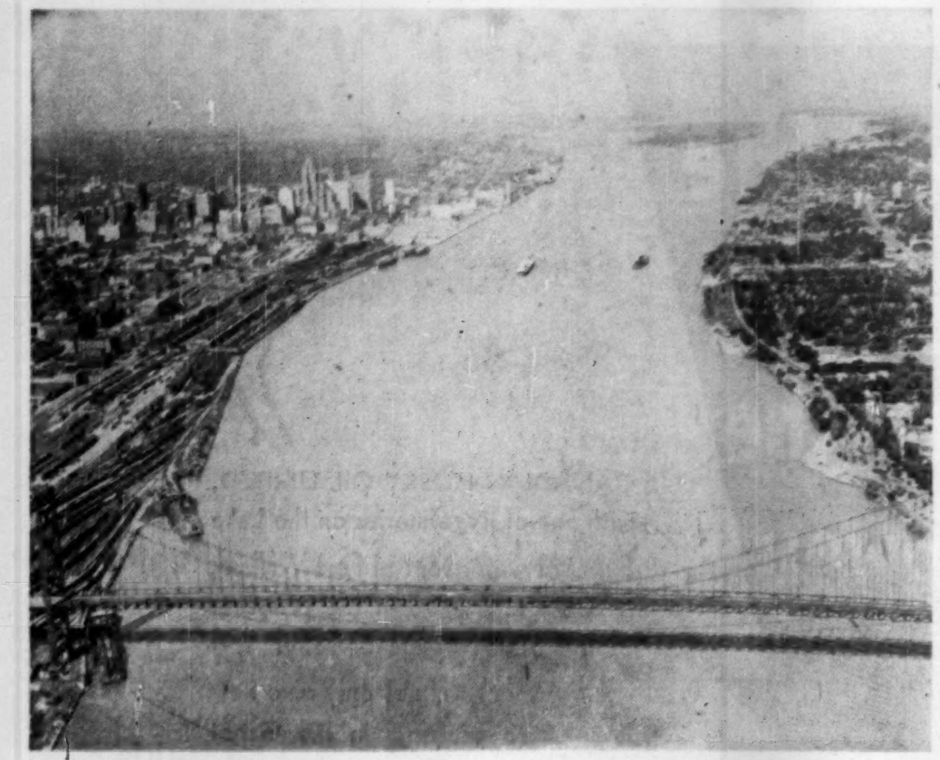
Some shipowners and seamen say its single locks (one shown above) will plug up shipping badly. Even today, they say, the canal is too slow for Canada's vast flow of lakes trade.

Others disagree. Economists and trade experts believe most Seaway shipping will go only as far as Toronto and Hamilton, and the extra strain on the Welland won't materialize.

Meanwhile, deepening of the canal to the Seaway-standard 27 ft. continues (below left). Dredges work during summer months, and in winter the canal is drained for dry excavation.

The Welland (in panoramic view below right) carries shipping through one of Canada's great fruit belts and a rich manufacturing region.





WINDSOR: (right): Miles of potential port.

MURRAY A. ELDER, 31, industrial commissioner for the Windsor Chamber of Commerce, has been in industrial promotion work for seven years, working formerly in Montreal and Owen Sound.

A big job for Elder: Zoning and planning for expansion of Windsor-area plants, working in co-operation with adjacent townships.

Elder is a director of the American Industrial Development Council, secretary-treasurer of the Ontario Industrial Development Council, and the only Canadian member of the (U.S.) National Industrial Zoning Committee.

Windsor

Ten Times More Traffic

By MURRAY ELDER
Industrial Commissioner
Windsor Chamber of Commerce

Windsor, largest Canadian city on the Canada-U. S. border, sees more water-borne traffic passing its door during the navigation season than the Suez and Panama canals combined.

It is estimated that with the opening of the St. Lawrence Seaway, the ships of the Atlantic and other oceans of the world will increase this Detroit River traffic a minimum of 10 times.

Windsor is planning, to ensure the area will secure its share of this traffic, and the developments it will bring.

The people and industries of Canada's 10th largest city contribute to make Windsor the fifth manufacturing city in the country.

Modernization and expansion programs in Windsor's industries will total $41 million in 1957.

Industry in Windsor is not a big user of water transportation at the present time. It could be, and the other forms of transportation recognize this potential competition and make some adjustments in freight rates over inland centres.

As long as this condition exists, and Windsor's products are such as to demand the fastest possible delivery year around, only limited use will be made of water shipping facilities.

The automobile is a product of speedy assembly, parts are rushed to completion, tooling for the next model run commences before the latest is placed on the market.

Skilled Workers

At the present time, the 500-odd industries in Windsor employ approximately 43,000 highly skilled production workers.

The majority produce automotive products, and the sizable balance whisky, beer, pharmaceuticals, toys, salt and a large variety of food products.

Many of these companies make their shipments by water. Improved shipping facilities, through rates to foreign ports and better water service will increase this usage in the future.

These facts have all been weighed by a Civic Harbor Committee representing City and Chamber of Commerce officials and as a direct result a Harbor Commission is in the final stage of formation.

The Windsor Harbor Commissioners Act was passed in the closing days of Parliament; the appointments to the new commission will be made shortly, it is expected.

At the present time, most of Windsor's industries have their own dock facilities. Dockage totals about 6,400 ft. with a depth from 19 ft. to 26 ft. alongside.

The Livingstone Channel on the lower end of the Detroit River is being cleared at present by the U. S. Corps of Engineers.

The deepening of the upbound Amherstburg Channel and downbound Livingstone Channel is the responsibility of the U. S., and the multi-million dollar program is in full swing now.

Windsor is fortunate in that many acres of land are available for harbor development. On the down-river side of Windsor, only three miles away, is Ojibway and 2,000 acres of land with a 2,500-ft. slip.

A four-lane highway connects the area with the centre of the city and rail facilities are provided by a terminal railway, which connects with the **C & O, NYC, CPR, CNR,** and the **Wabash** railways in the city.

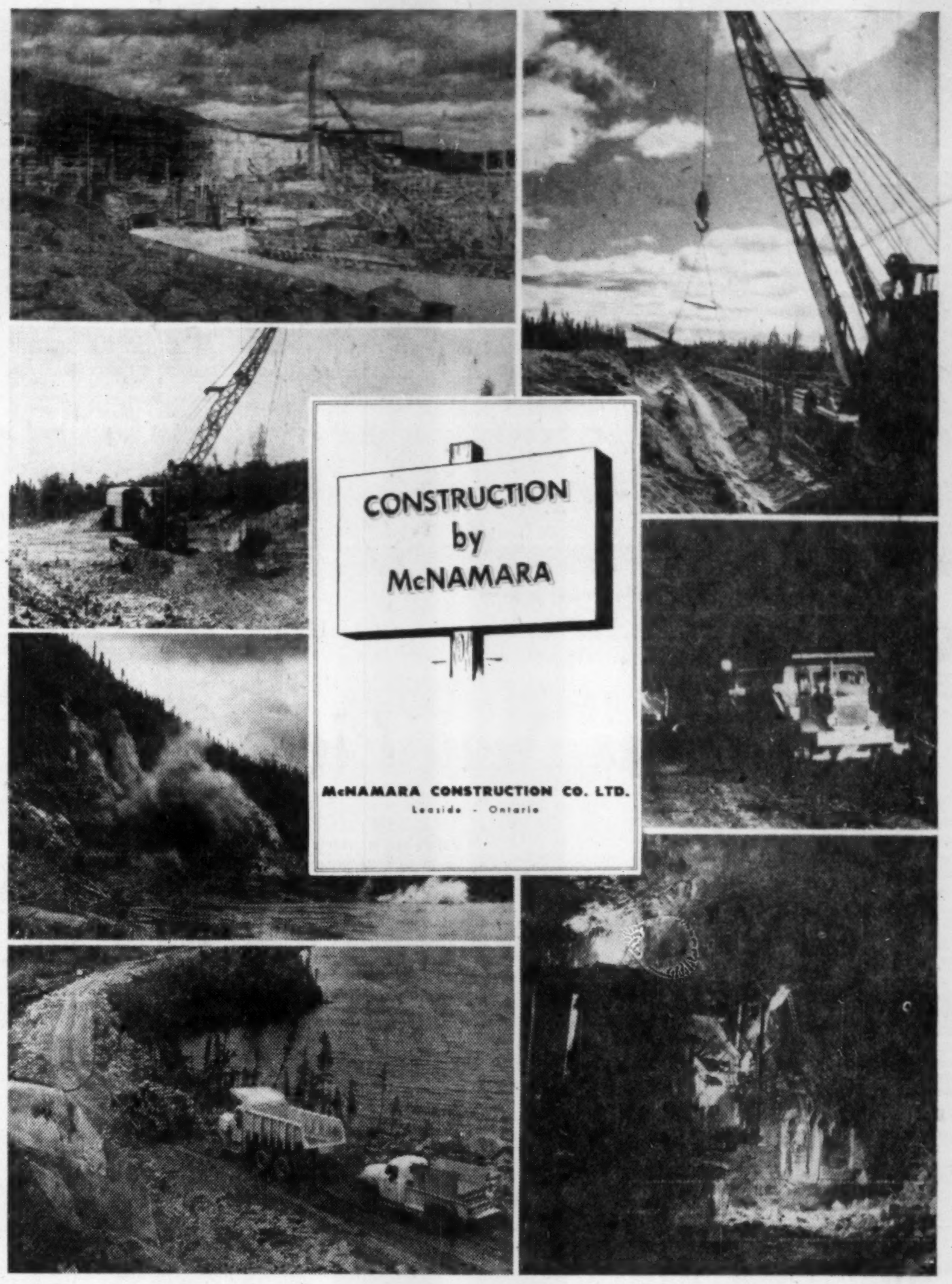
Bonded warehouses, if constructed in the future, could provide for over-night delivery in the general Chicago area, and points farther to the south and west.

Shipments unloaded at Windsor in bond could be transshipped by rail and arrive in Chicago within eight hours, via the New York Central rail tunnel, connecting Windsor with Detroit.

The facilities of the Chesapeake & Ohio Railway could also be used in much the same fashion to points such as Milwaukee.

To sum up:

- Windsor is eagerly awaiting the Seaway.
- It is cautiously considering steps that should be taken to ensure the greatest benefits for the community.
- A Harbor Commission is in the preliminary stages of formation; the city is preparing to turn over waterfront property to the commission.
- New industries such as **Canadian Rock Salt Co.,** are using water transportation for the movement of tremendous tonnages of salt to consumers.
- Chemical companies are a definite possibility for the Windsor area in the future.



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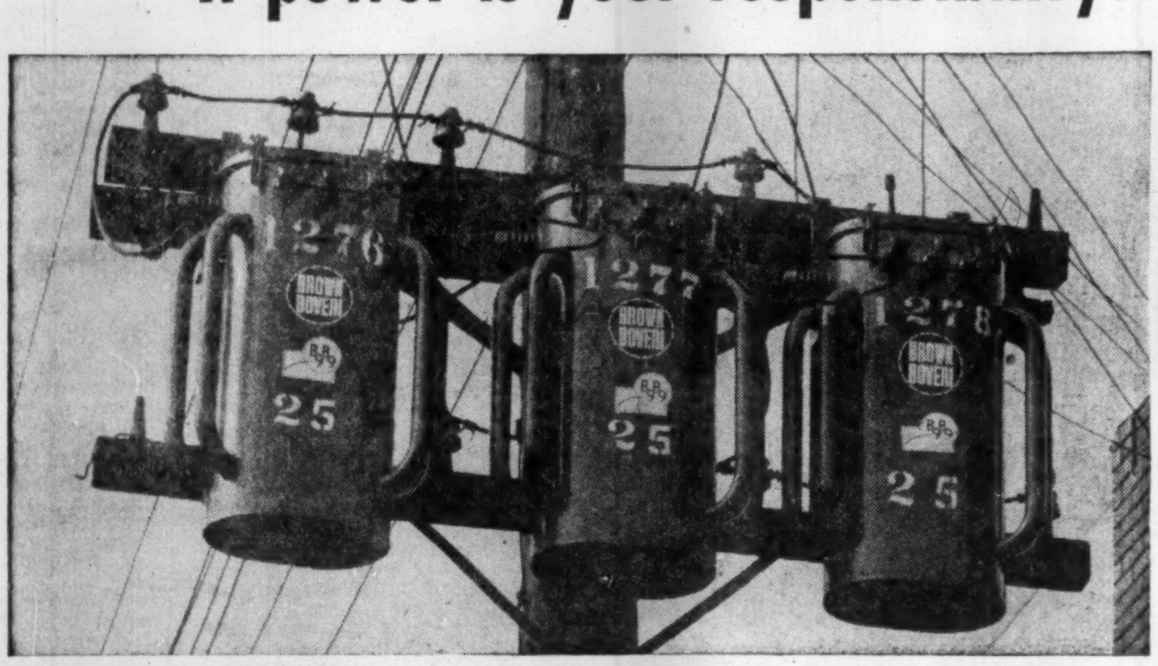
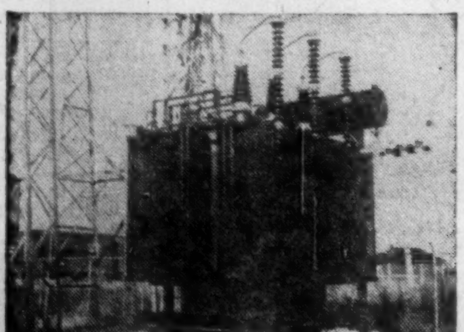
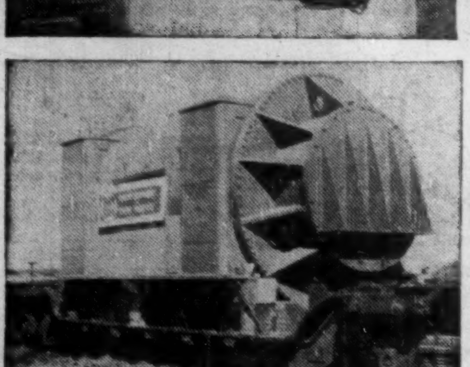




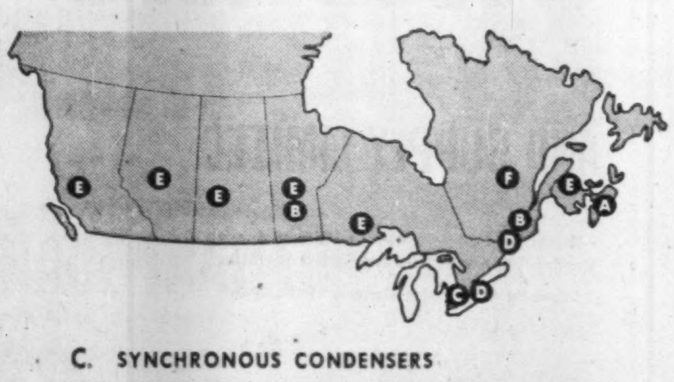


A. DISTRIBUTION TRANSFORMERS

The "BB-99" Distribution Transformer was designed by Brown Boveri to meet the standards of the Canadian utility. BB-99 installations like this one in Halifax, N.S. have been service-proved from coast-to-coast.

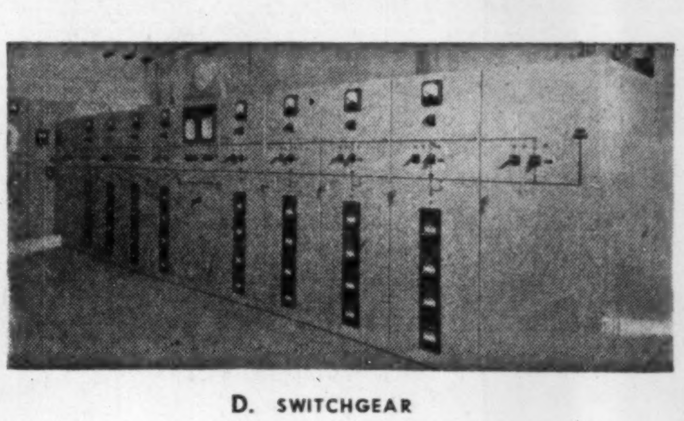
B. POWER TRANSFORMERS

Industries and utilities across Canada are being dependably served by Brown Boveri transformers like this 10,000 KVA 66,000/4160 volt type ONS unit, supplied to Quebec Power Co. Limited.



C. SYNCHRONOUS CONDENSERS

This 48,000 KVA 13,800 volt, 900 rpm hydrogen-cooled equipment in transit to Hydro Electric Power Commission of Ontario is typical of the many types of heavy duty rotating machinery built by Brown Boveri.



D. SWITCHGEAR

Brown Boveri's Type DB High Speed Airblast Circuit breaker is a well-known example of switchgear designed to provide the highest standards of operational safety and convenience. Brown Boveri switchgear has been chosen for many of Canada's major power installations — St. Lawrence Power Project, Sir Adam Beck No. 2. etc.

Competitive quotations across the nation have won Brown Boveri its place at Canada's major industrial projects.

Today, in every province, engineers turn to Brown Boveri for every kind of power equipment — from distribution transformers to powerful turbo generators.

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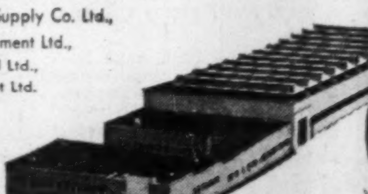

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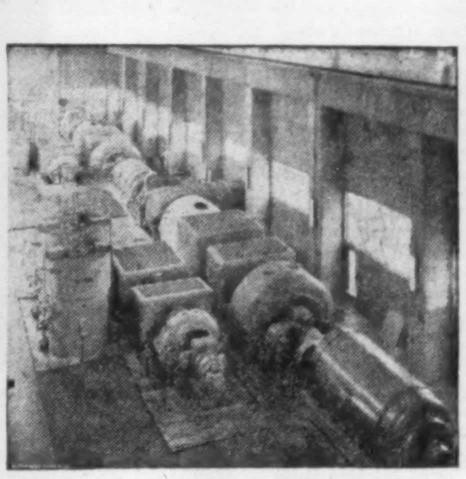
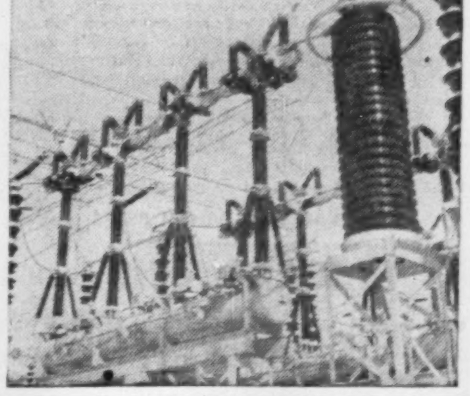


E. TURBO-GENERATORS

Six 25,000 KW gas turbines similar to the pair illustrated are being supplied to Western Canada . . . four to B.C. Electric Co. Ltd. . . . two to City of Edmonton . . . plus five 10,000 KW turbines . . . two to Saskatchewan Power Corporation, Kindersley . . . one to City of Lethbridge . . . one to Canadian Utilities, Sturgeon Lake . . . one for Western Chemicals, Two Hills, Alberta. Brown Boveri is also one of the largest suppliers of steam turbines.



F. HIGH VOLTAGE OUTDOOR CIRCUIT BREAKERS

Brown Boveri High Speed Airblast Circuit Breakers, provide maximum protection under all conditions for system voltages from 24 to 400 KV. 300 KV units, as above, were supplied to Hydro-Quebec for Bersimis I and II transmission lines.

M-7-3

SARNIA: Bustling river port.

Sarnia

Plans New Piers

The Seaway will bring freighters of the world to the doorstep of Canada's greatest concentration of petrochemical industry.

And the city fathers of Sarnia — who are proud to call their main street "Chemical Valley" — are getting ready for the Seaway.

On the drawing boards is a plan for building three new "finger" piers to extend south into Sarnia Bay from the present government dock. The piers would be 200 ft. wide and there would be 450-ft. waterways between them.

Sarnia's Harbor Advisory Committee recently approved a report recommending construction of three new piers. Copies have been passed to city council for endorsement and to the Federal Public Works Department in the hope that help from Ottawa will be forthcoming.

The existing government dock can accommodate 31 ships of the 350-ft. class at the same time. Over-all dock area is more than 11,000 sq. ft. In addition to the government dock, there are docking facilities owned by companies.

The visitor driving through Sarnia along Vidal Street and Highway 40 will see a vast "laboratory" of pipes, tubes, tanks, towers and furnaces, from which flow petroleum products by the millions of barrels; millions of pounds of synthetic rubbers; caustic soda, plastics, ammonia, solvents, ethylene glycol (anti-freeze), chlorine, fibreglas, carbon black and many other chemicals now essential to the Canadian economy.

Here are the larger companies in this complex: **Imperial Oil, Polymer Corp., Fibreglas Canada, Cabot Carbon, Dow Chemical, Sun Oil, Canadian Oil, Polymer Corp., Fiberglas** Each of these great operations is in some degree dependent on its neighbor.

Chemical Valley

Although "Chemical Valley" holds the spotlight, it is Sarnia's good fortune to have within its boundaries other plants producing everything from molded plywoods to spark plugs.

It might be said that the story of Imperial Oil's refinery on the banks of the St. Clair River typifies the story of the oil refining industry in Canada.

Today, as the country's largest refining unit with more than 2,000 employees, it makes hundreds of products for thousands of uses, as well as providing the raw material for the petrochemical plants which have grown up in Sarnia.

The refinery is the major link between Canada's biggest producing fields and its biggest consuming market. To the west a continuous pipe line — longest in the world — links the refinery with the Alberta oil fields. To the east, another products pipe line carries its major products to the consuming industries of London, Hamilton and Toronto.

At the apex of this vast distribution network, the Sarnia Imperial Oil installation is being expanded and modernized to the tune of $41.5 million (chemical plant $28 million, detergent alkylate plant $4 million, catalytic reformer $5 million, wax plant $4.5 million).

This huge expansion will spark others and will induce other chemical plants to locate at Sarnia. Last year, these other expansions were announced:

Electric Auto-Lite — extension of plant and equipment, $2.5 million; Dow Chemical — enthanolamine plant $1 million, other expansion $500,000; Canadian Oil Refineries — chemical plant $3 million.

Ethyl Corp. opened its $11 million plant this spring.

Indian Reserve

This spring, also, a large area of the Sarnia Indian Reserve has been opened for industrial development. **New England Industries,** New York, bought 2,768 acres for $8 million and the **CNR** has expropriated land for right-of-way to this choice industrial land.

Last year 2,306 ships called at the port of Sarnia, as opposed to about 1,930 in 1955. Most of the 179 ships calling at the government dock in 1956 (as opposed to 162 the year before) to load for export from Polymer, Dow and Cabot Carbon were from the U.K. and other overseas countries.

Exports passing over the government dock totalled 41,000 tons, an increase of 6.6% over 1955. Imports passing over the dock added up to 55,000 tons. The city has built a new truck road from Front Street to the government dock, shortening by half the hauling distance from street to dock.

Sault Ste. Marie

Gateway to Canada's West

The Seaway will open up the Canadian West to the world. The gateway: Sault Ste. Marie.

The Canal City (pop. 46,000) has been a major Canadian trans-shipment point since the beginning of the century. It figures that, with the coming of the Seaway, it may become one of North America's major trans-shipment points.

Extensive harbor improvement proposals have been made. They're now under consideration of the Federal Public Works Department.

Plans of various sorts have been under study for several years. Nature of the present ones has not been revealed.

Two years ago, proposals to the Public Works Department suggested construction of new docksites in the vicinity of Leigh's Bay in the upper St. Mary's River, a mile west of the city limits.

Federal engineers, according to word received by Sault City Council and the Seaway Committee of the Sault Chamber of Commerce, said the area is the most likely location for deep-sea harbor development. Council approved selection of the site last July.

Early this year, **McNamara Engineering Ltd.,** Toronto, was asked by Public works to make a survey. The survey has been completed and at present is under Federal scrutiny.

SAULT STE. MARIE: Big plans by the link.

New Docksite

The proposed new docksite presents few obstacles in dock construction, an almost natural harbor and anchorage area, and easy access to St. Mary's River shipping lanes.

About 18 months ago, Capt. F. Manzutti, chairman of the chamber's Seaway Committee, said that surveys showed the need for construction of two docks, each about 600 ft. long, in order to handle traffic expected when the Seaway is complete.

Location of additional harbor facilities in the Leigh's Bay area would bring the building of dock warehouses and wharf facilities by shipping companies; along with railhead and highway requirements.

There have been some improvements of present docking facilities. In November, 1955, Sault city council heard plans for waterfront improvements at Clergue Park and along the **Algoma Central Steamship Co.** waterfront.

Improvements along the city's nearby waterfront brought a new aircraft slipway at Department of Lands and Forest headquarters, some new piling work and concrete wharfing; a new slip at the **International Transit Co.** ferry dock; and the leveling of the Algoma Central waterfront yards.

Many Seaway planners feel that the Seaway will stimulate tremendous industrial and other growth in the U. S. midwest. This would make Chicago perhaps No. 1 port on the Great Lakes.

If this is so, goods for Western Canada—which itself will receive great stimulus from the Seaway — will be carried in Chicago-bound ships and trans-shipped at Sault Ste. Marie. Sault people feel that the run across Lake Superior will be economically unsound; and that it will be far more logical to trans-ship at their city.

Easy Access

If expansions of this sort take place, the Sault envisions easy access to world markets for many of the area's major producers including **Mannesmann Tube Co.** (which recently opened a $20 million plant which was a year in building), **Chromium Mining & Smelting,** and **Abitibi Power & Paper.**

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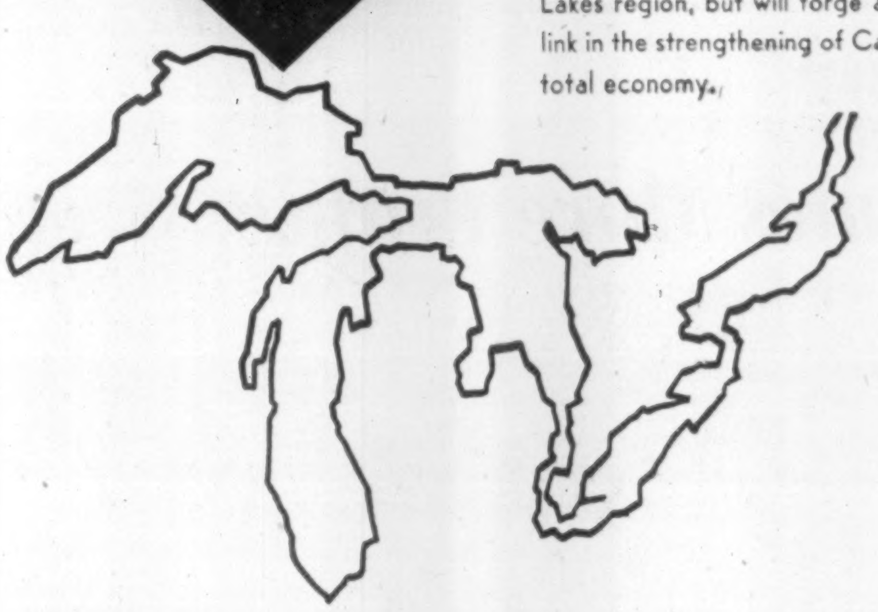
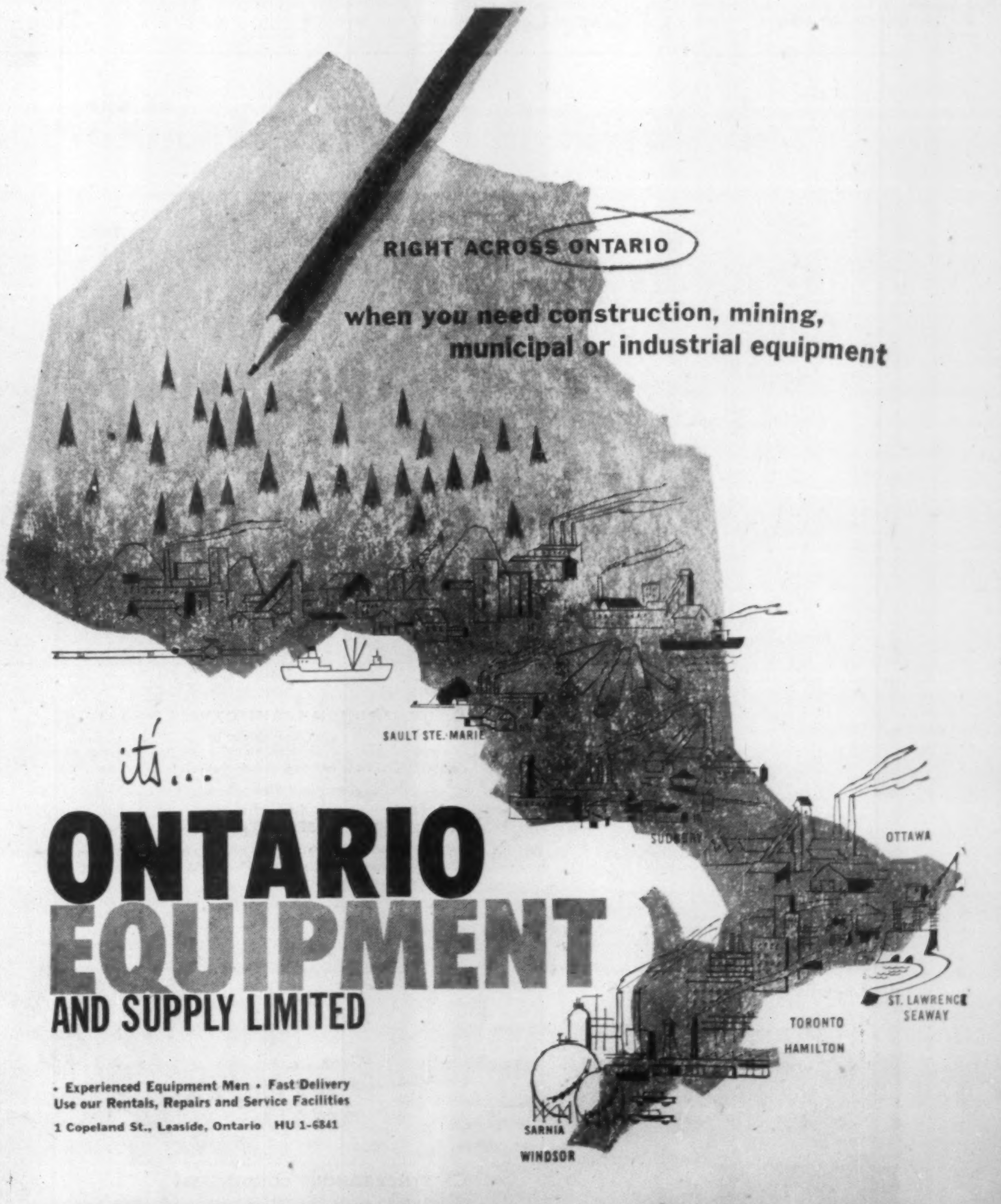
Where the Highway meets the Seaway



CANADIAN HUSKY OIL LIMITED, with one of its refineries on the Lake Superior waterfront at Fort William, is vitally interested in the progress of the St. Lawrence Seaway. This great project will not only give new impetus to progress in the Great Lakes region, but will forge another link in the strengthening of Canada's total economy.

Canadian HUSKY OIL Limited

GENERAL OFFICES — CALGARY ALBERTA



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Noble Company Northwestern Motor Company Sanderson Cyclone-Drill Company Smith Engineering Works Tarrant Manufacturing Co. Unit Crane and Shovel

Seaway Once Decried as 'British Threat to U.S.'

WASHINGTON, D.C.—Sixty-three years ago somebody in Washington proposed that a St. Lawrence Seaway be built. No sooner was the proposal made than an anti-Seaway lobby sprang up.

It was such a powerful wave of opposition the suggestion was overwhelmed and didn't recover for another 25 years.

When the Seaway proposal did pop its head above ground in Washington again in the 1920's, the wave of opposition rolled in once again.

Gradually, the wave got weaker in the 1930's and 1940's, but it was not until 1954 that the opposition caved in and Congress okayed the Seaway.

And this, only after Canada had decided to build the Seaway on its own without U. S. help.

The St. Lawrence Seaway battle is the clearest possible example of how a Washington lobby works.

This well-heeled anti-Seaway lobby successfully defeated six presidents, from Wilson down to Truman, who said the Seaway was a "must."

Every major governmental study from the 1920's to the 1950's said the Seaway was an economic necessity for fuller development of North America.

But the lobby had a fist full of arguments against for every one in favor of the Seaway.

It spewed forth a potent mixture of emotionalism and hazy economics that provided a knock-out potion for the plan for 60 years.

Won by Defense

Supporters first tried to sell the Seaway to Congress on economic grounds. Then they combined economics with defense essentiality. It was the defense angle which really broke the opposition in 1954.

The threatened by-passing of Atlantic and Gulf seaports was, of course, the reason why these ports opposed the Seaway. Support for the lobby came from the Middle West because of isolationist and anti-British sentiment.

Illinois, the Missouri Basin and the Mississippi Valley regions threw their support to the lobby because they feared the waterways of their areas would be hurt because a St. Lawrence Seaway meant a restriction on the amount of water that could be diverted from the Great Lakes, especially Lake Michigan, into the Mississippi and Missouri systems.

The utilities of the East feared the public power aspects of the St. Lawrence project and the mineworkers and railroad unions feared loss of jobs in their industries because of ships going through the Seaway.

The mineworkers because the railroads used coal and if the railroads suffered, so would the mines and miners. And if there was less business for the railroads, there would be fewer jobs for the railroad work-

The first surveys for the Seaway were made under President Wilson. Presidents Harding, Coolidge, Hoover, Roosevelt, Truman and Eisenhower all urgently tried to get Congressional approval for the scheme.

Ike Successful

All but Eisenhower failed, because of the lobby. The lobby actually started going downhill after 1934.

It reached its height then, defeating the then almost universally popular Franklin Delano Roosevelt who had asked Congressional okay for a treaty signed by Canada and U. S.

Another treaty was signed in 1941 and Roosevelt tried once again. This time he might have been successful, but the whole project was shelved when the U. S. entered the war.

After the war, Harry Truman took up the fight. The opposition was still weaker than in 1941, but the project was defeated again, this time, however, more out of spite against Truman than out of evaluation of the project itself.

With one exception, the opponents used the same arguments in 1895 as they did in 1954. These were the time-worn warnings of tens of thousands of unemployed, bankrupt railroads, closed mines, deserted Atlantic and Gulf ports, etc.

The one exception to these repeated arguments had its heyday in the late 1920's and the early 1930's. It was the charge that the St. Lawrence Seaway was a nefarious plot by the British.

Who made up this anti-Seaway lobby and why?

It was a formidable group. There were the eastern railroads, the coal companies, the ports up and down the entire Atlantic coast, some of the Middle West States, the Missouri Basin area, the Mississippi River Valley, the Gulf Coast ports, the utilities in the East, the mineworkers, the railroad unions and the anti-British and isolationists.

The sparkplug of the lobby was provided by the railroads. **The Pennsylvania and New York Central** vigorously opposed the Seaway. The railroads fought and lost the battle against building the Panama Canal.

They swore that a Seaway route would not be built to the north as well as to the south of the U. S. The reason for their opposition, of course, was that they feared they would lose business.

Much of what they used to carry from the West Coast to the East, now went through the Panama Canal.

They did not want to see their business of carrying goods from the East Coast to the Middle West disrupted by ships by-passing the Atlantic and Gulf ports and sailing right into the heart of the Middle West via the St. Lawrence Seaway.

These railroads never have been convinced by ICC reports and others that they may gain business rather than lose it because of the Seaway.

Eisenhower swept into office with as much popularity as did FDR in 1933. "Ike," however, had a crumbling anti-Seaway lobby against him, whereas Roosevelt had the lobby at its zenith.

Charles E. Wilson, boss of **General Electric** who had previously opposed the project, now came out in favor of it. Robert A. Taft, who fought bitterly against the Seaway under Truman, changed his mind to support it.

Governor Dewey threw in his support to Eisenhower's proposal for the Seaway. The Brotherhood of Locomotive Engineers decided to throw in the towel when they saw the battle was lost.

Missouri Senator Stuart Symington reversed his state's traditional opposition and young Senator John Kennedy gave up the ghost for Massachusetts, being the first Senator in 20 years to vote for the idea.

To all this was added the fact that Canada had decided to go ahead and build the Seaway on her own. With the opposition caving in and with Canada building the Seaway anyway, Congress finally gave its blessing to the St. Lawrence Seaway in 1954.

One man who worked hardest in the 1954 battle for approval was Treasury Secretary George Humphrey. At one time he had opposed the Seaway but had since changed his mind.

He was much castigated by opponents on the grounds that he would benefit personally because of the ore deposits in Labrador owned by his **M. A. Hanna Co.** which would be transported to the U. S. market via the Seaway.

Still In Trouble

Humphrey is still catching the devil from opponents. Listen to West Virginia Representative Cleveland M. Bailey as he told the House recently, "In the 83rd Congress, thanks to the intense efforts of Mr. Humphrey, this Congress authorized one of the most useless and dangerous boondoggles in this country's history.

"Now, if Mr. Humphrey is really serious about cutting the budget, let him halt this useless waste of taxpayers' money."

Another thing which helped to cave in the opposition was a provision in the bill approving the Seaway which called for the money loaned by the U. S. government to build the project to be repaid in 50 years.

The repayment would be made by tolls. The U. S. is having to spend more than expected (it expected to spend $105 million and has had to throw in an extra $35 million), and now serious doubts are rising as to whether the loan can be paid back in 50 years and still charge reasonable tolls.

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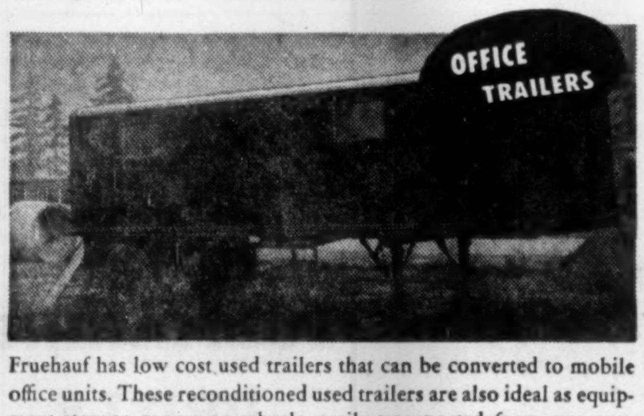
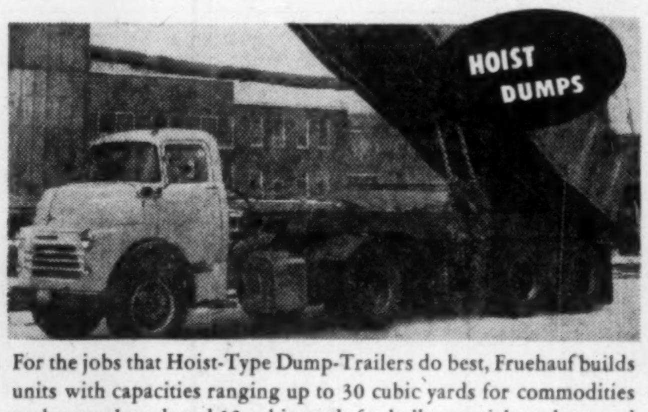
The new winchless Removable Gooseneck Fruehauf Carryall cuts unloading time of heavy cranes and shovels to less than 15 minutes—just half the time required by winch-equipped units. Uncoupling is quick and simple, and recoupling on slopes is no problem. No winch is required for units with capacities up to 50 tons—cost and upkeep are lower too.

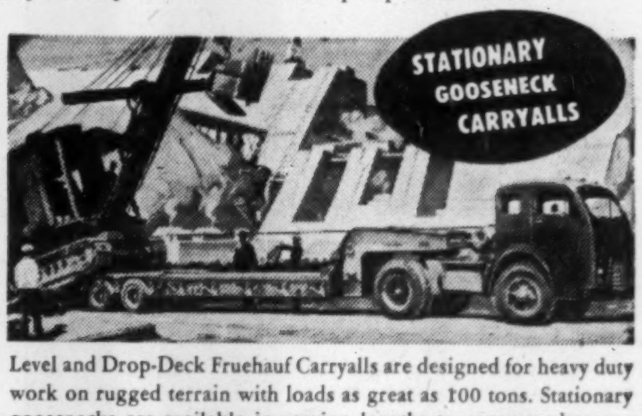
Cost-cutting Fruehauf Hopper-Type Dump Trailers are built in many styles, with capacities up to 14 cubic yards, for a variety of specialized roadbuilding materials, including sand, gravel, crushed stone, cinders, slag, bulk cement, lime, and many other aggregates and dry powdered materials. They are especially rugged and specially suited to rough terrain.



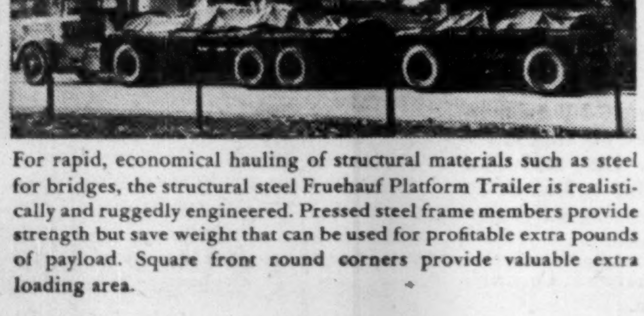
Fruehauf has low cost used trailers that can be converted to mobile office units. These reconditioned used trailers are also ideal as equipment storage rooms on wheels, easily transported from one construction job to another. Various sizes to choose from and at prices to meet your requirements.



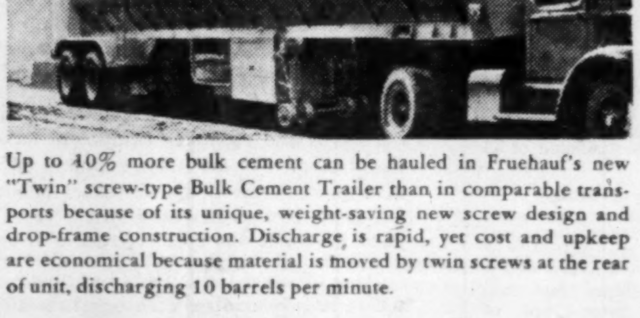
For the jobs that Hoist-Type Dump-Trailers do best, Fruehauf builds units with capacities ranging up to 30 cubic yards for commodities such as coal, rock and 13 cubic yards for bulk materials such as sand and gravel. Weight has been reduced and distributed so that these rugged units take maximum payload capacity to provide top hauling efficiency and profits for you.



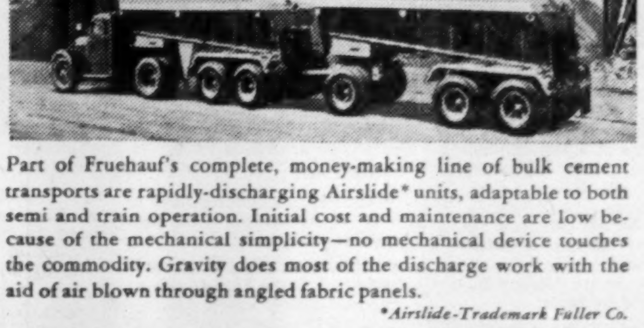
Level and Drop-Deck Fruehauf Carryalls are designed for heavy duty work on rugged terrain with loads as great as 100 tons. Stationary goosenecks are available in varying lengths to accommodate any type of tractor. Tough, dependable Fruehauf Carryalls are unmatched as profitable investments, for many have been in service to their owners for over 30 years.



For rapid, economical hauling of structural materials such as steel for bridges, the structural steel Fruehauf Platform Trailer is realistically and ruggedly engineered. Pressed steel frame members provide strength but save weight that can be used for profitable extra pounds of payload. Square front round corners provide valuable extra loading area.



Up to 40% more bulk cement can be hauled in Fruehauf's new "Twin" screw-type Bulk Cement Trailer than in comparable transports because of its unique, weight-saving new screw design and drop-frame construction. Discharge is rapid, yet cost and upkeep are economical because material is moved by twin screws at the rear of unit, discharging 10 barrels per minute.



Part of Fruehauf's complete, money-making line of bulk cement transports are rapidly-discharging Airslide* units, adaptable to both semi and train operation. Initial cost and maintenance are low because of the mechanical simplicity—no mechanical device touches the commodity. Gravity does most of the discharge work with the aid of air blown through angled fabric panels.

*Airslide-Trademark Fuller Co.

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FRUEHAUFS SPEED CONSTRUCTION . . . CUT COSTS FOR THE CONSTRUCTION INDUSTRY

Cornwall

Seaway Brings Prosperity

By W. G. COVENTRY
Industrial Commissioner,
Cornwall

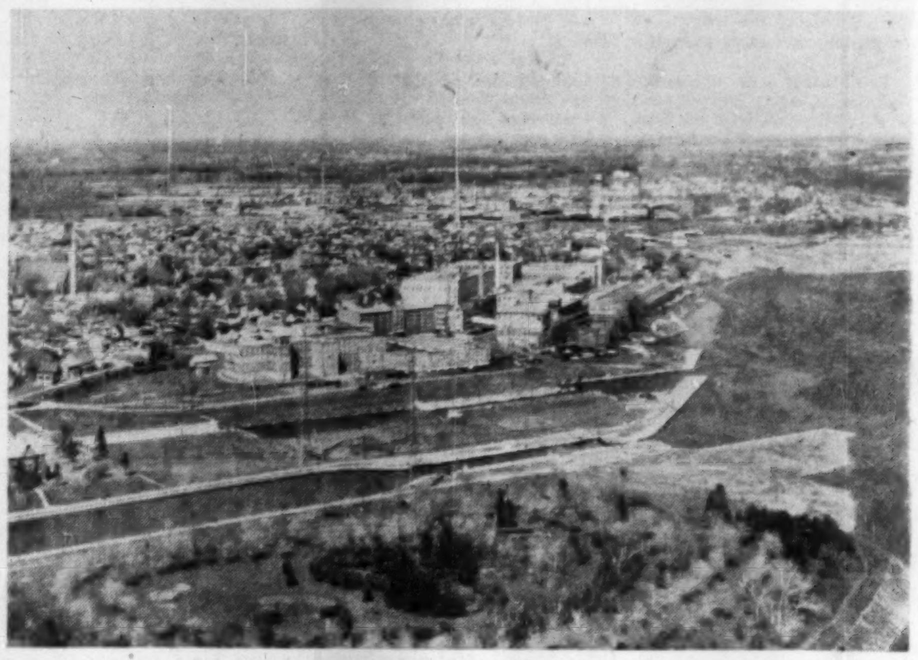
Twelve months have seen great changes in Cornwall and vicinity.

Progress on the Seaway and the hydro project has been maintained and it is quite apparent that, without some major mishap, the scheduled dates for completion of both projects will be met.

Progress during the year has wrought many physical changes in the riverside to the west of Cornwall.

The famed Long Sault Rapids have been deprived of their glory and now all the eye can see is the rock-strewn river bed where these rapids were.

In due course, when the Long Sault Control Dam is completed, the waters will run once again, but the height of the water will be increased to such an extent that the rapids will no longer be apparent.



CORNWALL: "Seaway City."

WILLIAM G. COVENTRY has been industrial commissioner for Cornwall, Ont., since May, 1956.

Mr. Coventry was born in England in 1903 and was educated at the RMC at Sandhurst. He served as an officer in the British and Indian armies.

He came to Canada in 1928 after resigning because of health. He has lived in Canada and the U.S. since that time. Mr. Coventry was a radio news editor and foreign news commentator in Seattle with the CBS station there for some time.

During the last war, he was with the British Ministry of Production in Washington, D.C. In 1947, he was appointed U.K. trade commissioner in Winnipeg where he remained for 8½ years before coming to Cornwall to take his present post.

It is easy to see the changes that have taken place in the great dam over which water will flow to provide the Ontario Hydro Commission and the New York State Power Commission with over 2.2 million hp. Some of the big generators are already in place.

The work continued through the winter months and will reach its peak this summer, when approximately 4,700 men will be employed by Ontario Hydro alone.

The two new towns which a year ago were very much in their initial stages have now been occupied and named.

New Towns

New Town No. 1, the most westerly of the two, has been called Ingleside and New Town No. 2, almost on the borders of Cornwall, has been named Longue Sault.

In Ingleside 250 people now occupy their newly located homes. Longue Sault has a population of over 600.

These two new towns are situated on the north side of re-located Highway No. 2. The whole of the lands to the south of No. 2, running to the shores of what will be the newly artificial lake, have been set aside for a parkway.

Work has already commenced in building up the shore line of this park; 1,700 acres of land has been put into the blueprint stage by the architects so that work will continue rapidly.

Seven islands which will be created by the new artificial lake are being joined by roadways so that visitors will be able to drive from island to island when this work is completed.

Historic memorials have been preserved and in addition to the Chrysler Memorial, an "Upper Canada village" is being established in which will be maintained everything that was used by the original settlers, the United Empire Loyalists, who came to this part of Canada in 1784.

Flooding in 1958

The flooding of the artificial lake is due to take place in July, 1958 and, according to engineers, water will reach its high mark within 72 hours after the flooding has commenced.

The Robert Saunders Power Dam will start to produce electricity at the end of that year and as more generators are brought into use, it will reach its maximum production of 1.1 million hp. for Ontario Hydro, with a similar quantity for the New York State Power Commission.

Dredging of the Seaway continues rapidly. Difficulty was encountered in finding contractors to dredge the south channel from the eastern point of Cornwall Island to the locks on the U. S. side of the river.

This work is now in progress.

During the past year Cornwall has mushroomed from a city of one sq. mile, with a population of some 17,000, to a city of 30 sq. miles with a population of over 40,000.

Late in October, 1956, Cornwall City Council expropriated some 340 acres of land on the eastern extremity of the city. The area embraces three farms and covers nearly 3,000 ft. of waterfront.

A firm of Canadian engineers specializing in harbor work has provided the city with a report on potential harbor development.

As a result of this report, city council has set aside 62 acres of the expropriated land for future harbor development.

The balance is being opened up for industrial development and it is anticipated that several firms will locate in this area shortly.

Just outside the city, to the east, the walls of the newest industry to settle around Cornwall are going up. **Edo Corp.** of Long Island, N.Y., bought 10 acres of land as a site for a Canadian factory.

It is anticipated that this plant, which will build seaplane floats and sonic equipment for both aircraft and war vessels, will be in full operation toward the end of September. Initially this firm will employ approximately 100 people.

Two U. S. corporations are spending over $100 million just across the river at Massena, New York, to construct an aluminum plant and an automobile parts factory.

There is no doubt that Cornwall will benefit from the construction of these two plants across the river in the same way that Windsor has profited from being opposite Detroit.

Natural gas will find its way to Cornwall by November of this year. It is possible that some of this gas may be piped across the river for use in the new plants being constructed in Massena.

Capital Expansion

Last year industry already located in Cornwall spent nearly $17 million in capital expansion.

It is believed that this sum will be equalled, if not bettered during the present year.

One industry is doubling its production capacity and nearly every other industry is making substantial capital expenditures.

Apart from all the physical changes that have taken place during the past 12 months in Cornwall and vicinity, there's a change in the outlook of the people of this city.

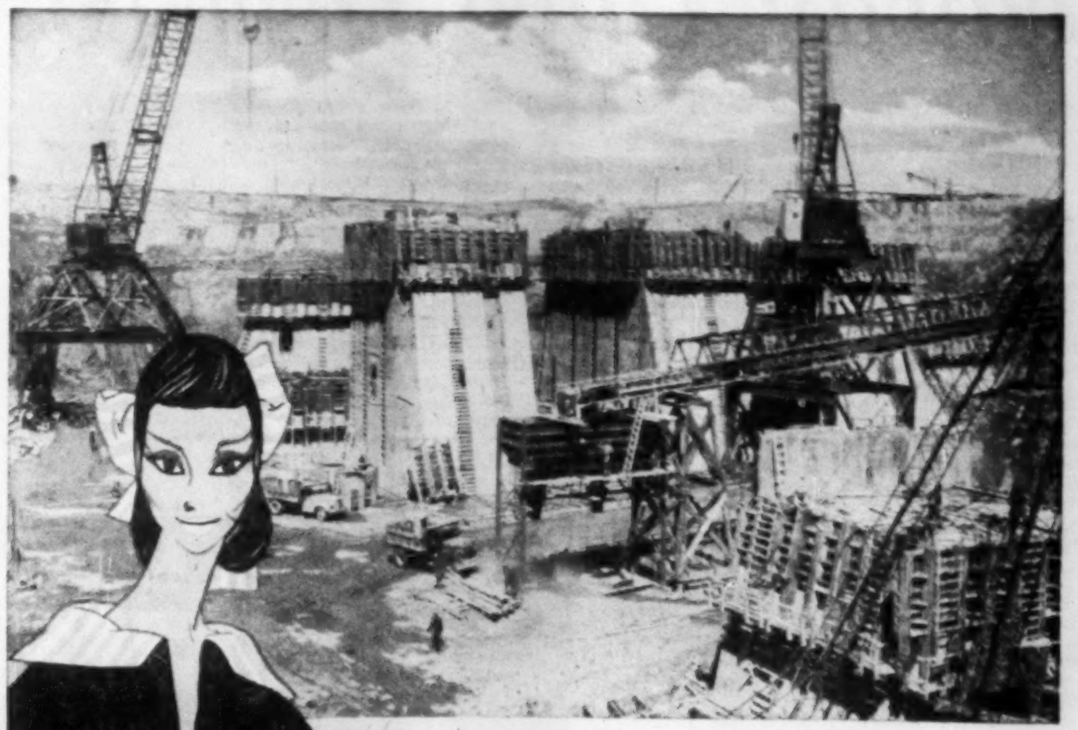
At one time, because the Seaway was to be permanently diverted away from Cornwall to the locks on the U. S. side, people here feared that Cornwall would not benefit greatly from the great development.

However, the deepening of the channel to the north of Cornwall Island has changed this attitude.

Provision has been made by the Federal Government whereby, when volume of Seaway traffic demands additional facilities, an all-Canadian Seaway can be brought into use with very little additional expenditure.

The lock in the dike of the diversion canal can be transformed swiftly for use by the larger ships. Only one additional lock will have to be built and the waterway widened and deepened between these two locks.

The realization that an all-Canadian Seaway can now be a reality, has brought a new spirit to Cornwall.



FASHIONS CHANGE IN **STEEL** TOO

Cutting the St. Lawrence skyline, in a corner of the giant Seaway Project, are the revolver cranes. Central built the gantry superstructures for these and others. For example there are two 100 foot gantries at 85 tons each, one 85 foot job weighing 50 tons and another 60 foot superstructure at 40 tons.

Gantry superstructures are simply another facet of the Central Bridge operation involved in design, fabrication and erection of steel bridges, buildings, tanks and special platework. Call Central for steel construction.

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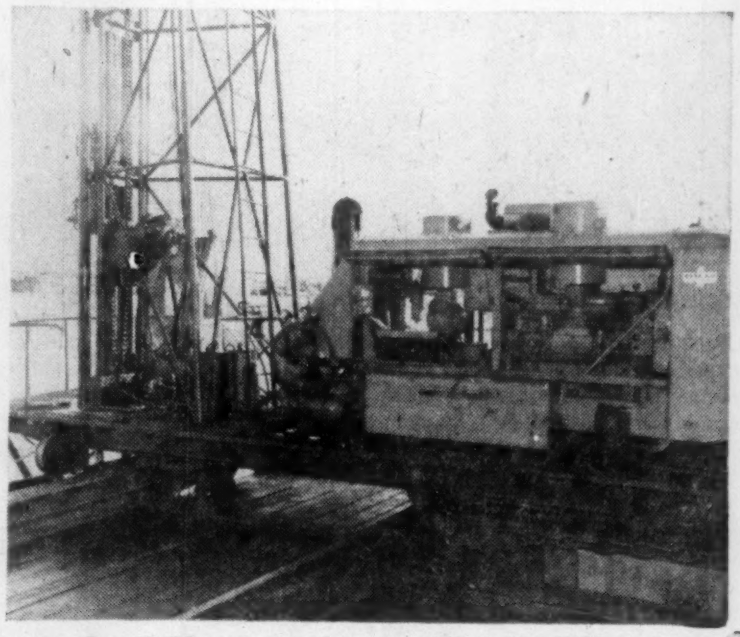
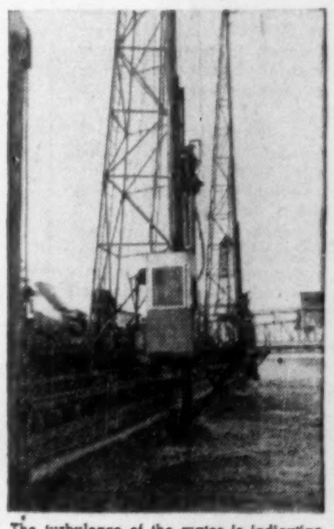


Base of Drill Tower showing rail mounting and 600 cfm "Gyro-Flo" Compressor.

C-I-R SUBMARINE DRILLS ON THE SEAWAY



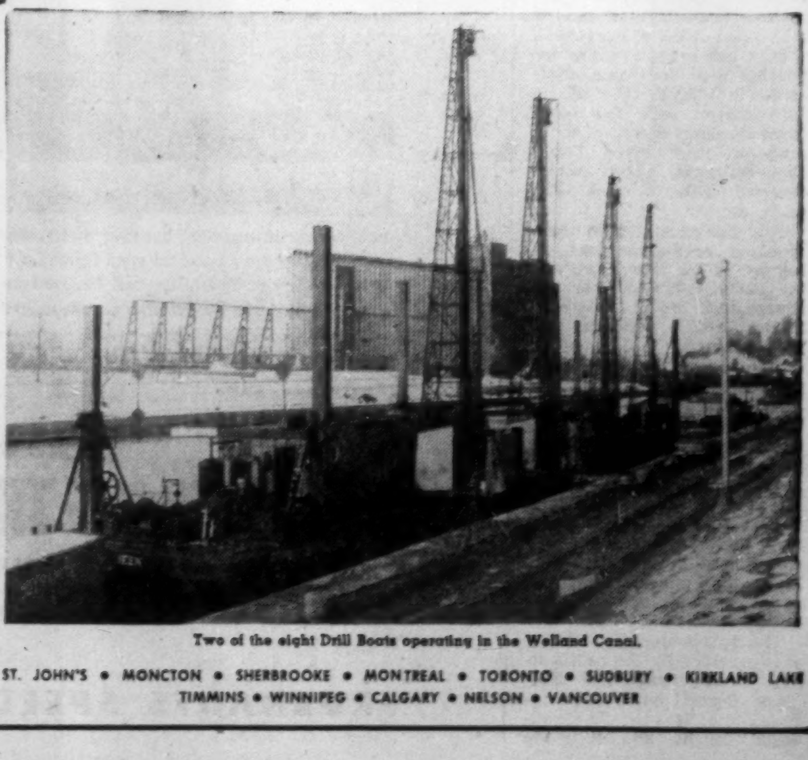
The turbulence of the water is indicative of the compressed air power drilling and hole cleaning.

• One of the most difficult dredging operations on the Seaway is the deepening of the Welland Ship Canal. Dry excavation was not possible. Submarine Drills were the only answer to break rock under about 25 feet of water.

Eight Drill Boats—each equipped with two C-I-R Submarine Drills and auxiliary equipment have been working in the Canal area. The drills are mounted on rails. Easy horizontal movement of the drills for exact hole spacing is assured by C-I-R air motors mounted on the rigs. Operating air is supplied by C-I-R 600 cfm "Gyro-Flo" Compressors.

One of these Drill Boats has now been moved to Cornwall where it is operating with equal satisfaction.

When planning harbour development, channel deepening or removal of lake shoals and ridges, be sure to enquire about C-I-R Submarine Drills from your nearest C-I-R office.



Two of the eight Drill Boats operating in the Welland Canal.

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KINGSTON: Lake-and-river terminus.

Kingston

Hassle Holds Back Seaway Plans

Although Kingston is the key centre in a fast-expanding industrial and agricultural area on the Great Lakes, it hasn't gone ahead yet with Seaway harbor-building plans.

Reason: There's a jurisdictional hassle over who owns the land where harbor facilities would be built.

Kingston is the second-oldest city in Canada and the arrangements, on harbor land, were made before Confederation in 1867.

Just which government owns them and what are the areas of responsibility is a matter for the constitutional lawyer. Consideration of the problem is going on now.

However, Kingston hasn't let this difficulty dampen its urge to grow. Present population is 49,000, a growth of 5,000 in four years. With suburbs, population is 60,000, and the four-year growth is 9,000.

Right now:

- Du Pont (which employs 1,200) is undertaking a $2 to $3 million expansion.
- **Aluminum Co. of Canada** (2,200) is going ahead with an expansion of similar size.
- **C-I-L** (520), 10 miles away at Millhaven, recently completed a $1 million ammonia plant.
- **Kingston Shipyards** (180) is building a cruiser for the RCMP.
- **Canadian Locomotive** (450 to 900) is building four new diesels for South Africa.
- The city is spending $1 million on a new sewage disposal plant and $2 million on roads and streets.
- Six new schools and several additions are under construction — to the tune of $3 million.

Military Tradition

Kingston has a long-standing military and educational tradition — it's the seat of Royal Military College which turns out officers for Canada's armed forces; and of Queen's University one of the most noted of this country's institutions of higher education.

Until the middle of the last century, it was the chief city of "Canada West" (Ontario) and was one of those considered by Queen Victoria as a possible capital for the new Dominion of Canada.

Kingston hopes that the Seaway will mean at least a partial return to its former glory. It could become a transshipping point of great importance.

GONE FOREVER: Long Sault rapids (top) once hurled tons of water high into the air. In order to build the St. Lawrence powerhouses, they were dammed and dried. They'll never roar again.

History

River of Hope, Fear

The St. Lawrence—river of high hopes, grave fears, big dreams and broken hearts, where man's centuries-old struggle to carve a deep waterway from the sea to the heart of North America—is at long last nearing a reality.

This is a river rich in history. It has been a battlefield. Across this setting have moved soldiers, engineers, trappers, sailors, priests, and fishermen.

By 1959, the Seaway will be a reality and, to many, the history of the St. Lawrence will only begin to be written as world trade moves into the industrial heart of North America after three centuries of trial and tribulation.

The **Mercantile Bank of Canada**'s newsletter says the Seaway gives the world a new Mediterranean.

To one of Canada's foremost writers, Stephen Leacock, the Seaway was a "project of fascinating grandeur." It was all this and much more.

To Jacques Cartier, that bright October day in 1535 when he anchored in the heart of what is now Montreal, the river was the road to the riches of the Orient, the Northwest Passage.

Exploration by courageous explorers exploded Cartier's dream just as the swirling Lachine rapids blocked his canoes.

More than a century later LaSalle believed the river was mainly useful as an avenue into the interior for the fur trade. If the falls and rapids could be conquered, the passage of larger vessels could be won into the heart of the continent. But this was considered impossible.

So he turned his back and his tiller to the Mississippi River where he was murdered by his own men. For a century though, LaSalle's judgment on the St. Lawrence stood the test of commerce. The Mississippi became the great waterway to the west. But many visionaries still looked to the St. Lawrence as the river and avenue of destiny.

LaSalle was proven wrong when in 1825 the Erie Canal linked the Great Lakes to the Atlantic by the Hudson River and the port of New York.

The economic balance of the U. S. shifted to the north.

As early as 1760, Col. Frederick Haldimand, who later became Governor of Quebec, decided to by-pass Lachine Rapids with a canal. His decision was made after he saw the wrecks of 46 boats which were carrying military stores and supplies and claimed the lives of 84 men.

At Coteay du Lac, a series of tiny locks was started between Montreal and Lake St. Louis and Lake St. Francis. The size: only 900 ft. long and seven ft. wide. The length would not be equivalent to one lock in the Seaway system today. Still it was a move in the right direction.

The major step toward joint development of the Seaway came in 1895. The governments of Canada and the U. S. created an international waterways commission called the International Commission and instructed it to report on the feasibility of a deep channel from the Great Lakes to the sc . But it took the next 60 years before the project was ratified.

Seaway Started 1895

While the original idea dates back to this deep waterway commission in 1895 which was to report on all possible waterways connecting the Great Lakes to the Atlantic ocean, the first comprehensive report was submitted only in 1921.

In 1905 the International Waterway Commission replaced the Deepwaterway Commission and was given the task of studying the utilization of international waters along the Canada-U. S. boundary.

The functions of the commission was clarified and restated a few years later—in 1909—when the two countries signed the International Boundary Treaty, establishing the International Joint Commission with jurisdiction over boundary water problems and "other questions or matters of difference arising between Canada and the U. S. along their common frontier."

Outbreak of World War I postponed the study of boundary water for navigation and power.

The first conclusive report on the improvement of the Great Lakes - St. Lawrence Waterway was published in 1921. The Woodten - Bowden Commission, named after two engineers appointed by the U. S. and Canada, submitted a favorable report to the International Joint Commission for improvement of the St. Lawrence between Lake Ontario and Montreal.

In turn, the commission included the Welland Canal section of the project and recommended to the respective governments that a large board of engineers be appointed to revise the preliminary plans.

In 1926, a joint board of engineers recommended the construction of a 25 ft. channel from the Great Lakes to Montreal and full power development. The following year, a Canadian advisory committee proposed a 27-ft. deep channel and suggested stages of development and continuation of negotiations.

Treaty Signed

In 1932, joint board of engineers presented its final report which served as basis for negotiation of a proposed treaty. The St. Lawrence Deep Waterway Treaty was signed.

However, such a treaty needed ratification of U. S. Congress and Senate and Canada's Parliament. Such ratification didn't come. In March, 1932, it was defeated in the U. S. Senate which required a two-thirds majority.

Meanwhile, the New York State Legislature created the St. Lawrence Power Commission to study and prepare plans for the development of power in the river. It was the first power authority set up in the U. S. by any government.

An agreement was signed in Canada between the Federal and the Ontario provincial government regarding power development at Barnhart Island in Cornwall in 1932. Thus, negotiations had entered into the Federal - Provincial and Federal-State level.

In 1938, the text to a new treaty was submitted by the U. S. to Canada. With the Second World War, the need for more power was stressed as well as the urgency to undertake the project because of its value to national defense. In 1940, preliminary steps were taken by both governments to proceed without delay on the entire project.

The same year a board of advisors and engineers was formed to make engineering surveys. The two countries signed an agreement in 1941 providing for construction of

"Across this setting have moved soldiers, engineers, trappers, sailors, priests and fishermen."

the works in Lake Ontario-Montreal section and for completion of navigation improvements in the other sections of the waterway. The tentative dates set up decided for completion of the project was 1948.

The final engineering report was presented but President Roosevelt indicated in October, 1942, that due to shortage of steel and manpower—the year after Pearl Harbor—immediate action on the St. Lawrence project was to be postponed.

In 1945 the project was revived. Governor Dewey of New York and President Truman favored construction. Legislative machinery was put in motion. The Senate committee, a report of the U. S. Corps of Engineers, agreement between the power authority of New York State and the U. S. Corps all entered into the picture.

In 1947, the Canadian External Affairs Minister announced Canada concurred in principle to the charge of tolls to make the Seaway self-liquidating.

In 1949, the External Affairs Minister expressed concern in the House of Commons on the U. S.-Canada agreement of 1941 and the delays in action in Washington. In 1950, Ottawa officially suggested the idea of an all-Canadian route.

In 1951, Parliament of Canada established the St. Lawrence Authority with power to build the project on the Canadian side of the river and giving authority to the province of Ontario to develop through its agents, the **Hydro-Electric Power Commission of Ontario**, the hydro-electric facilities in the International Rapids section. The door was left open for the American agency appointed by the U. S. to co-operate and participate in the project.

In June, 1952, the U. S. Senate defeated the resolution authorizing the project. Following the rejection, Washington and Ottawa exchanged notes and it was agreed that Canada would undertake to build the waterway alone. A double application was made to the International Joint Commission for approval of projects for the construction of power facilities for both countries.

Final Okay

But the pendulum swung back again. In 1953, two resolutions authorizing completion of project were introduced to the American House of Representatives and Senate.

A Senate committee approved a new bill in June, 1953, creating the St. Lawrence Seaway Development Corp. to construct the facilities in the International Rapids section.

Several months later the power authority of the State of New York was designated by Washington to be the U. S. agency to construct, operate and maintain the American portion of the hydro-electric power project.

The two countries established the St. Lawrence River Joint Board of Engineers to co-ordinate all construction programs in the International section.

It wasn't until the spring of 1954 when the joint agreement authorizing the construction of the Seaway and power project was signed by Prime Minister St. Laurent and President Eisenhower. A few months later, at the international boundary on the St. Lawrence, Mr. St. Laurent, Governor Dewey of New York and Premier Frost of Ontario took part in the traditional sod-cutting ceremony.

Today, drag lines and dredges are plowing their way around the shallows and rapids that still bar the St. Lawrence to deep-draft ocean vessels. The construction crews are moving forward with their work.

Ocean-going vessels will follow in their wake as quickly as the Seaway is opened to traffic.

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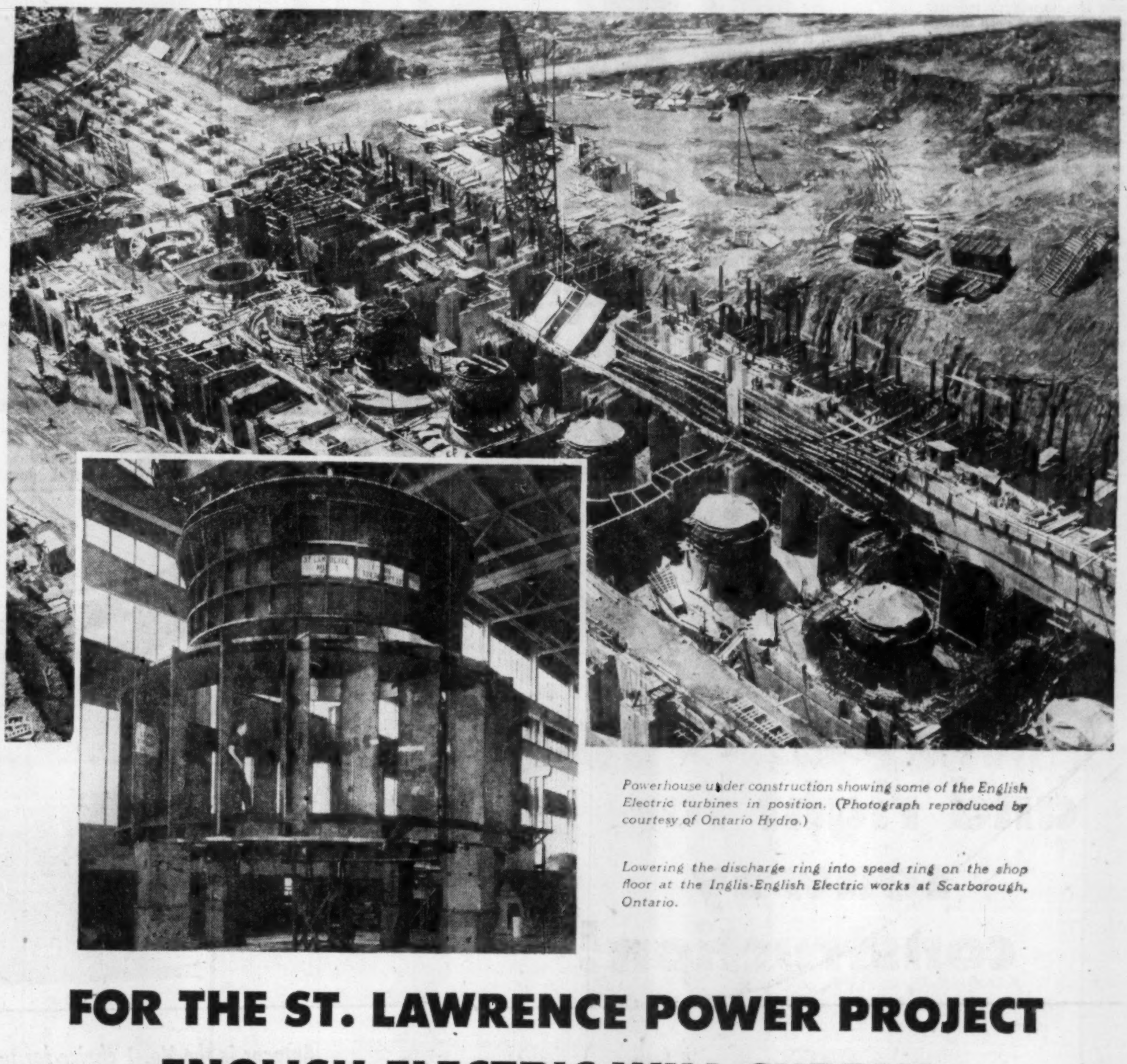

Powerhouse under construction showing some of the English Electric turbines in position. (Photograph reproduced by courtesy of Ontario Hydro.)

Lowering the discharge ring into speed ring on the shop floor at the Inglis-English Electric works at Scarborough, Ontario.

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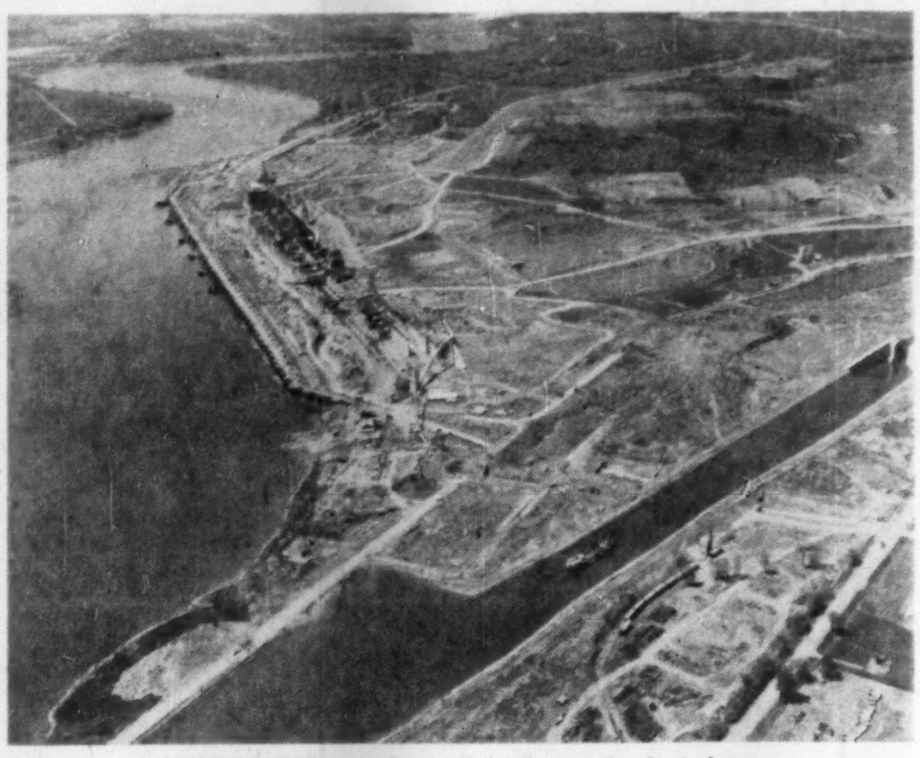
Beauharnois

Powerhouse Plans Going Ahead



POWERHOUSE near Cornwall begins to take final shape.

In the game of chess to match demand for hydro electric power, the Soulangé Section of the St. Lawrence Seaway is an important pawn.

Quebec Hydro-Electric Commission is pushing ahead with an extension to the existing powerhouse to produce an additional 810,000 hp.

This will bring installed capacity at the Beauharnois site to 2,235,000 hp, one of the world's largest power installations. The work is scheduled for completion in 1959.

The ultimate output would be in the order of 13 billion kwh per year, equivalent to 365 carloads of coal of 50 tons each per day.

The total excavation work needed amounts to 250 million cu. yds., 10 to 15% more than that required to excavate the Panama Canal and more than double all the St. Lawrence Seaway work, excluding Beauharnois.

Total length of the powerhouse will be 2,836 ft. or over one half a mile.

The Beauharnois project utilizes the water power available on the St. Lawrence River between Lake St. Francis and Lake St. Louis.

The river flow is controlled at the outlet of the lake by four dams extending across the river between three islands.

As a result, water can be directed into the 16-mile canal excavated on the south shore and is returned to the lake after an 80-foot drop through the Beauharnois powerhouse.

Beauharnois is one of the important projects under way on Quebec rivers, many of which flow into the St. Lawrence.

By the end of 1961, installed capacity in the province is scheduled to increase from about 8.5 million hp to more than 12 million.

Despite this startling growth rate, two questions are uppermost in the minds of those studying provincial growth.

Are even the new projects under way or planned sufficient to meet the fast growth in demand? If not, where will be the next major power play?

In all considerations, Quebec Hydro's Lachine and Manicouagan system power potential are at the forefront.

The Lachine generating plant, as envisioned, would have an ultimate capacity of 800,000 hp at a cost of about $175 million of which it is expected about $155 million would be spent prior to 1963 if constructed.

Since it seems likely the Lachine project would take three years to build, it would have to start before 1960 to keep inside that time schedule.

However, it could go ahead much faster — and probably would — if demand was seen to warrant it.

With the high interest on borrowed money today and with the large capital outlays Quebec Hydro has slated over the next few years, a new program in terms of costs has to be considered carefully.

The commission might prefer to give priority to the three million hp Manicouagan power potential. It might be developed at either one or several sites, depending on the economics involved.

The commission's capital program is big. The expansion program from Sept. 30, 1953, through 1962, originally called for outlays of $495 million.

This has recently been jumped to $520 million to provide additional facilities. Toward the end of last year, $390 million remained to be spent.

Of course the Manicouagan system which includes the Manicouagan River (estimated potential two million hp) and the Outardes River (estimated one million hp) could be developed either concurrent with Lachine, before or after it.

At the present, studies are under way at both sites to determine the relative merits of one over the other.

On the one hand, Lachine is close to Montreal. Distribution charges would be much lower than from the Manicouagan.

However, cost per hp installation at Lachine likely would be higher than on the Manicouagan system where the potential is greater.

Quebec Hydro has several major projects now under way to keep ahead of the ever upward demand curve. For any utility — private or public — measuring year to year growth in demand in the future is difficult.

Will it continue at the historic rate — doubling every seven years? Will it be faster or slower?

On the consumers depend the speed with which programs are considered.

Bersimis No. 1 and No. 2 will have ultimate installed capacities of 1.2 million hp and 800,000 hp respectively, storage dams capable of impounding billions of cu. ft. of water, a 7.6 mile concrete line tunnel, a permanent townsite for 150 families, 2,100 circuit miles of 300,000 transmission lines and related facilities between the Bersimis plants and Quebec and Montreal.

The first three of eight units of Bersimis No. 1 to be installed are in operation, and another unit is to be put in service about Aug. 1 this year. The remaining four are expected to come into service between the fall of 1957 and the fall of 1958.

The commission has speeded up its plans for construction of Bersimis No. 2, located 23 miles down stream from Bersimis No. 1. The first two of the five units are scheduled for completion in October, 1959, and the remaining between the fall of 1960 and early 1961.

One of the interesting features in the Bersimis No. 1 project was the savings in overall construction costs through direct purchase of equipment and machinery instead of renting from various contractors on the job.

Six different contractors were at work and with the equipment pooled under its control the different items were allotted as required and kept in operation during one hundred percent of the time.

A large part of this equipment has been transferred to Bersimis No. 2, Lake St. Anne on the Manicouagan River where Quebec Hydro is building a storage dam and Beauharnois and will be used as required on these locations.

In the next five years the province will be adding about one million hp per year and the potential untapped power in the province is still tremendous: perhaps in the order of 25 million hp.

SHIP

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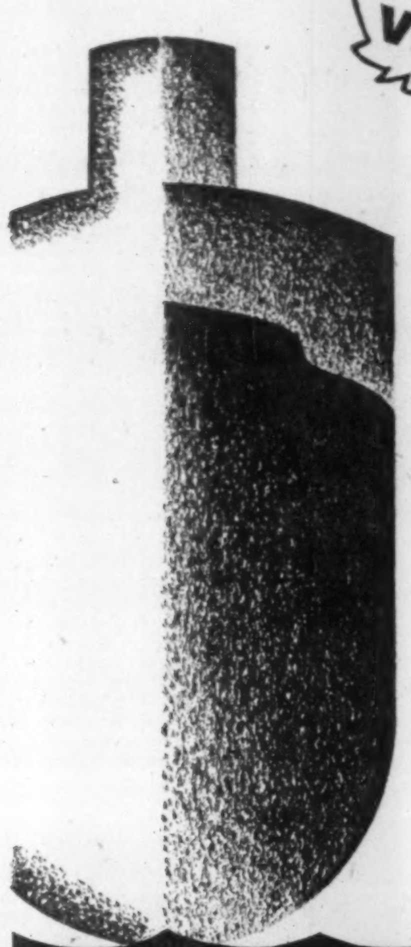

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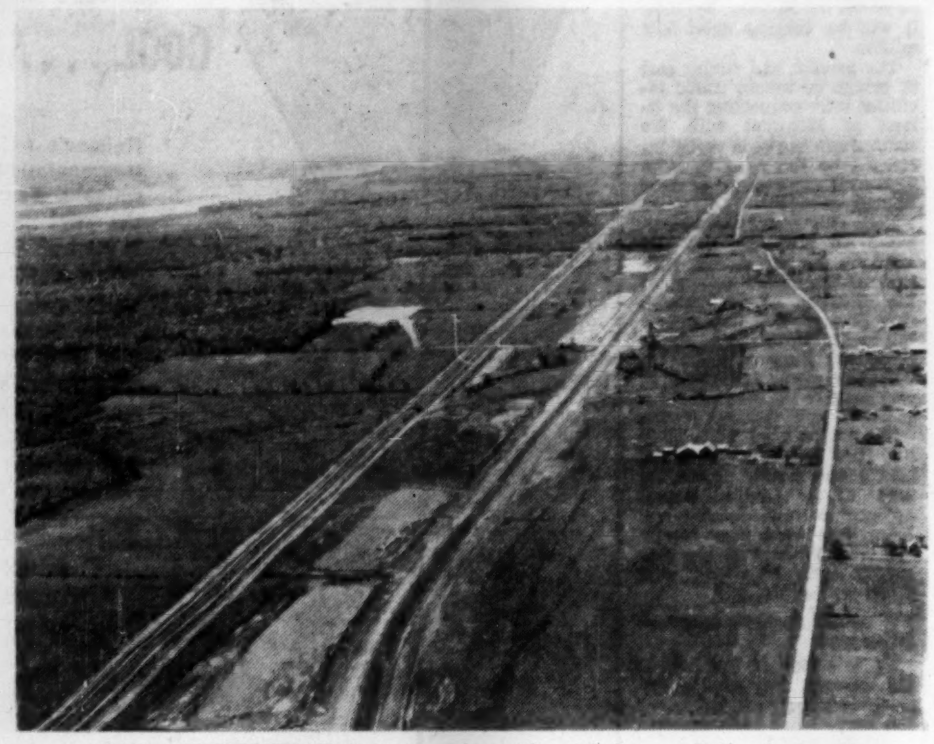
Seaway Bridges

Here's How They Are Built



RAIL AND HIGHWAY diversions arrow through Seaway Valley lowlands.

One of the most spectacular developments on the St. Lawrence Seaway project is bridge construction.

The scene:

Spans, towers, giant cranes, a host o. mechanical devices like electrically operated brakes to control the span, span locks to hold it down, rail locks to ensure proper rail alignment, span and counterweight guides, air buffers, rope .ake-ups . . .

So come along to the St. Lawrence River in Montreal harbour and take a look at Victoria Bridge.

Historically, it was built as a tubular single track railway bridge, completed in 1859 and was the first bridge from the island of Montreal to the South Shore.

In 1897-98, the piers were enlarged and the tube was replaced by the present Victoria Bridge. Essentially, it is unchanged although there have been several improvements to the roadways since then.

To provide the 120-ft. clearance over high water level by ships using the Seaway, and at the same time permit uninterrupted flow of traffic, **Dominion Bridge Co.** is building two vertical lift bridges over the St. Lambert Lock for the Seaway authority.

The lock is the first one encountered by vessels going up the Seaway from Montreal. Each bridge will carry both railway and highway traffic.

The "lower bridge" will replace the last span of Victoria Bridge and will be located slightly downstream from the lower lock gates. The "upper bridge" will be located slightly upstream from the upper lock gates.

The Operation

When both bridges are down, a ship travelling upstream approaching the lock will find operation of the bridges as follows:

—Diversion of traffic over the upper bridge.

—Raising lower bridge, permitting ship to pass into lock.

—Lowering the lower bridge and diverting traffic over the lower bridge. The length of time required to operate the lock gates and change the water level in the lock allows time for traffic diversion.

—Raising the upper bridge, permitting ship to pass out of lock. So traffic will flow alternately over the lower and upper bridges as ships pass up and down through the lock.

The use of lift spans at this location was dictated by the relatively flat maximum permissible grades for railway operations. To keep within these permissible grades, a high level bridge would have required several miles of approach spans.

The structure of the track and roadway level of the lower verticle lift bridge consists of a 115 ft. deck plate girder type lift span over the 80 ft. wide lock, a 53 ft. tower space and short approach spans to total 260 ft.

All spans carry double track railway with a 16 ft. roadway on each side.

At each end of the lift span a tower 175 ft. high supports the counterweight sheaves. A fixed overhead bridge joins the top of the towers and supports the machinery which raises and lowers the span.

At each end of the span a counterweight is connected to the lift span by wire ropes passing over the counterweight sheaves.

Each counterweight consists of a steel box filled with concrete and having three precast concrete auxiliary counterweights suspended from it.

The entire span is 115 ft. long, 78 ft. wide and weighs 590 tons. It rises 97 ft. to permit passage of ships.

Provision has been made in the design for possible future: electrification of the railway, change in grade of railway and removal of highways in order to provide the utmost flexibility in development of Victoria Bridge by the CNR.

The towers, overhead bridge and counterweights of the upper are similar to those of the lower although the dimensions are slightly different.

The lift span, however, consists of 96 ft. truss span with double track railway at the top chord level and four single highway lanes 12 ft. wide at the bottom chord level. The entire span weighs 520 tons, rises 100 ft. to permit passage of ships.

303 Ft. Long

A 116 ft. approach span on the St. Lambert side of the tower is designed for conversion to lift span if future traffic on the canal requires a second lock to be built. The total length of the upper bridge, including approaches is 303 ft.

Highway approaches to the upper bridge are being constructed by contractors for the St. Lawrence Seaway Authority. Rail approaches are being designed by the CNR.

The weight of the lift span is fully balanced by the weight of the counterweights. Each corner of the span is connected to a counterweight by wire ropes passing over a counterweight sheave 15 ft. in diameter weighing 17 tons.

The span is raised and lowered by two 1¼ in. wire cables in each corner, one end of each being connected to the span or the counterweight while the other end is connected to a drum at the machinery house on the overhead bridge.

The drums are driven by a 150 hp. electrical motor which will raise or lower the span against the forces of wind, friction and inertia in 90 seconds.

The bridge control circuit starts and stops the span automatically at the proper level when raising or lowering.

The erection of the lower bridge presents unusual problems because heavy railway traffic must continue to operate over the span while the trusses are removed and the new structure is built.

In general, both tracks will be in use but limited periods of single-track operation will be permitted to allow erection of the new steel.

The majority of the lifting will be done by 150-ton capacity guy derrick having a 202 ft. mast and a 160 ft. beam. The derrick, largest in Canada, will be mounted on a 182 ft. steel tower standing on the floor of the lock.

The top of the derrick mast will be 384 ft. above the lock floor, 323 ft. above the top of the lock wall.

Build Falsework

Falsework designed to support both trains and the existing structure will be erected under the existing bridge. This will consist of 94 ft. steel trusses spanning the lock and of steel columns embracing it elsewhere.

The weight of the existing span will be transferred to the falsework by means of wedges under the existing floorbeams.

The trusses and overhead bracing will then be dismantled. The existing railway bridge floor will be removed in sections under one track at a time to permit railway operation on the other track. Each section will be replaced immediately by new railway girders and deck, preassembled in large units and then erected by means of the derrick. So rail traffic interruption will be minimized.

When the towers are erected to a point above the railway clearance line, temporary Bailey bridging will be installed over the track. A timber mat 36 ft. wide and 12 in. thick laid over the Bailey bridging will protect passing trains from these operations.

Erection of the upper portions of the tower, overhead bridge, counterweights, machinery and highway spans will follow.

When the overall work has been completed, protection mat and Bailey bridging will be removed, permitting completion of final details such as machinery adjustments and electric wiring.

As no traffic is involved, erection of the upper bridge presents no special problems. Lifting will be done with two 20-ton guy derricks mounted on suitable towers.

Specifications require that all work on both bridges be completed by April, 1959, in readiness for the opening of the Seaway.

The permanent raising of the southern end of the Jacques Cartier Bridge and the replacement of a span required to provide the necessary clearance for ships using the Seaway channel is believed by the contractors and Dominion Bridge and other engineering authorities to be the largest operation of its kind ever undertaken.

The bridge crosses the river from Montreal to the South Shore. The contract is valued at $6,898,750 and is one of the most spectacular and complicated works required for the Seaway.

Being Modified

The bridge approach between St. Helen's Island and the South Shore is being modified to give 120 ft. clearance over the Seaway Channel. To obtain this, the clearance on the 10th span from the south shore is being increased by 80 ft., 50 ft. by increasing the roadway elevation and 30 ft. by replacing a deck span by a through span.

To make this alteration, the bridge is being jacked without stopping traffic from its initial position to the final road grade profile which will give a 50 ft. increase on span No. 10, and sloping down to pier No. 14 at a 3.8% grade.

To permit increase of the roadway grade elevation at the south abutment, traffic is being diverted on two lanes of Bailey bridging on each side of the third span to the south shore. The Bailey bridging and turn-off platform at span No. 3 is being supported on structural steel framework.

While the traffic is traveling over the Bailey bridge bypasses, spans No. 1 and No. 2 have been lifted. At the North end of span No. 2 there will be further jacking and the south end of span No. 1 will reach its final elevation at abutment zero.

During this stage of jacking, the first pier has been increased in height by about 13 ft. and the abutment zero has been completed.

About 68 ft. south of abutment zero and on the bridge center-line a new abutment has been constructed as the additional fill could not be supported by the present abutment. A 65 ft. deck plate girder span has been erected between the two abutments. The roadway south of the new abutment is being constructed on fill.

The main bridge roadway is expected to be open to traffic in August and the Bailey bridge and turn-off removed.

The jacking will be done by eighteen 500 long ton jacks, and twelve 400 long ton jacks. Heavy steel weldments called climbing jacks will be used in place of each pier member.

A span end will be lifted by the jacking girder and the climbing jack will replace the bridge pier member. The climbing jacks will consist of three bearing surfaces, the central one being on a pad on the ram of a hydraulic jack.

Jacking Plan

The main jacking operation is done this way: Pressure is admitted to the hydraulic jack thus lifting the bridge and outer pads of the climbing jack by six inches. Precast concrete blocks will be placed under the two outer pads of each climbing jack.

The hydraulic jack will then be fleeted, and a concrete block placed under its bearing pad. The span will have been raised by six inches and the operation can be repeated.

All four jacking points on one pier will be raised by six inches and then a similar operation will be carried out on another pier.

When the bridge over any pier has been raised by two feet a course of pier gate concrete will be poured.

When the bridge road grade is at its final elevation, the climbing jack will be replaced by a precast pier capping block and the original bridge pier member.

At Caughnawaga, the **CPR** double track line from the Island of Montreal to the South Shore crosses the Seaway channel.

Here, two independent lift bridges, one for each track, are being built side by side over the channel to give a clearance for shipping of 120 ft. from the high water level. The two bridges are identical except for secondary details such as stairs and walkways.

The erection of the superstructure starts this summer and the bridges are to be completed for the spring of 1958.

At the Honore Mercier Bridge, the main object of the project is to provide a system of approaches which will carry traffic uninterrupted over the new Seaway channel which is parallel to the south of the St. Lawrence River from the Mercier Bridge, Ville La Salle, to all South Shore highways leading to the south and west.

Erection of steel work will begin late this year. The whole project will be constructed in two phases. The first phase consists of one main branch to be completed in May, 1958, and the balance in May, 1959.

CHAMBER of the Lower Beauharnois Lock was blasted out of iron-hard Potsdam sandstone.

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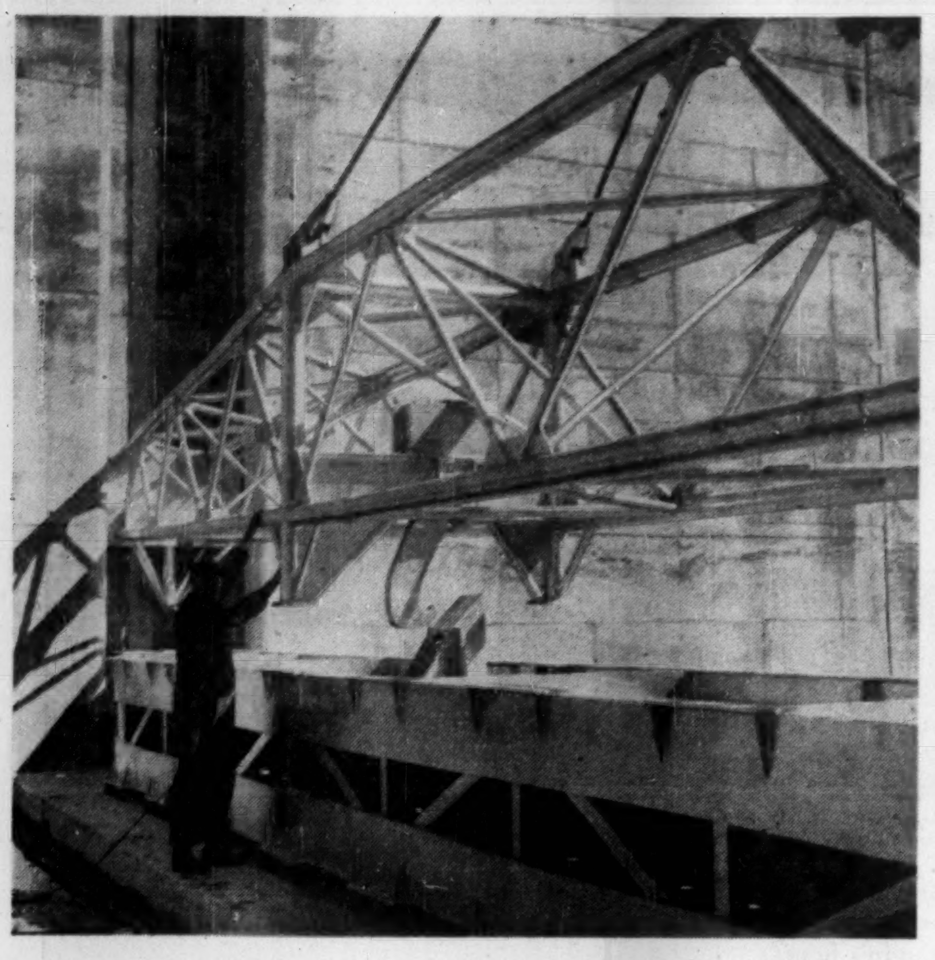

HOOKING DEVICE lifts and lowers stop-logs in new Seaway locks. These logs are raised and lowered in keyways as a protection against water flow when the gates are not in use. This log rests on the lock sill.

'Little Seaways'

Working Models Remove the Guesswork

What is likely to happen when you start altering the flow of millions of gallons of water?

Most of the answer can be found from readings of engineers' slide rules. But inevitably there are some unknown quantities.

Any hit-or-miss method would be out of the question.

The answer has been found in a series of models that would delight schoolboys of any age. Complete in every detail, they duplicate those sections of the Seaway project where hydraulic problems can be expected.

Each model is constructed so that it will behave in a similar manner to the structure it represents. Models show for example how far up stream the land will be flooded when a dam is built across the river. They also show how long it will take a ship to pass through the Seaway locks. They can show how much stress is placed on the hawsers holding the ship in position in the lock.

Hydraulic models will give engineers vital clues on how to eliminate dangerous cross-currents in navigation channels, and how to calculate the amount of water that will flow over a spillway of a dam when a certain number of gates are open.

The Seaway Authority has contributed to the hydraulic model program by constructing at National Research Council hydraulic laboratory in Ottawa a model representing the important sections of the St. Lawrence River from Barnhart Island power houses to Lake St. Francis.

On this model the NRC scientists and engineers, working in co-operation with authority engineers, have developed a plan for improvement of the channels in the Cornwall area, which will allow shipping a broad and slow-flowing channel leading to the Grass River Lock.

Also built at NRC is a model of the Seaway locks. This model which reproduces in detail every phase of operation of the locks, has been vital in the development of the hydraulic system that allows a ship to pass through the locks in a minimum of time and with a maximum of safety.

Hydraulic Labs

At Ville La Salle, on the outskirts of Montreal, the Authority has built its own hydraulic laboratory.

All the features of the giant Seaway are being carefully built into these models, and by measurement with specially designed gauges and meters the interests of the surrounding communities—which would suffer badly from any mishandling of the water supply—are being guarded.

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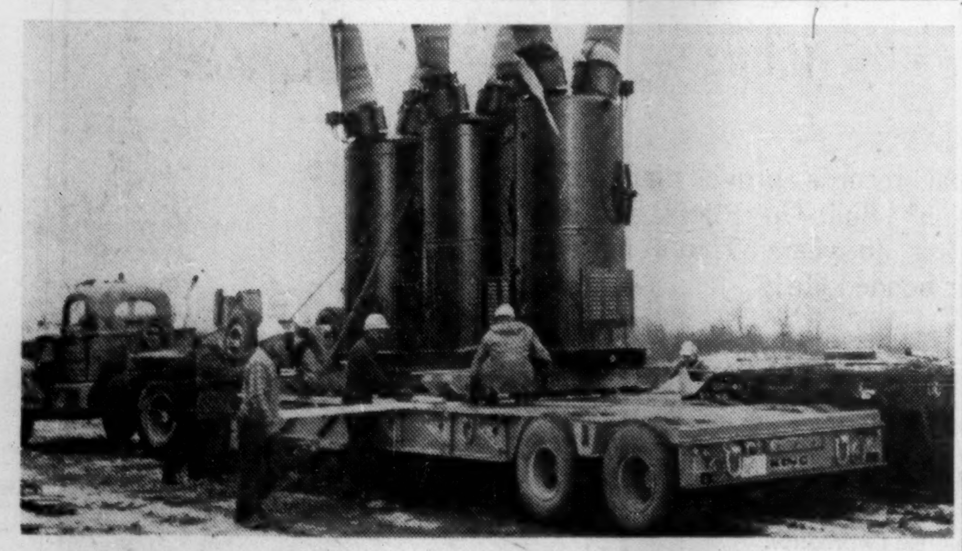

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Busy on the St. Lawrence Seaway project, Stormont Construction needed a trailer that could do many jobs. They chose a KING model 42SW Low Bed Semitrailer. Here shown hauling a hydro circuit breaker, this versatile trailer is also used by Stormont to haul dredges, bulldozers, steam-shovels, bagged cement, unserviceable trucks — in fact, almost anything that can be hauled.

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Municipal Bureau

Solving Montreal's Woes

The St. Lawrence Municipal Bureau was created by the executive committee of the City of Montreal in May 1955.

The move grew out of the following considerations:

- The construction of the St. Lawrence Seaway, commenced in 1954, had brought into sharp focus a number of problems of vital concern to the City of Montreal and its region.
- Foremost amongst these was the possible effect of the Seaway on the future role and status of the Port of Montreal and of Montreal as a transportation and shipping centre.
- Of no less concern was the whole matter of highway and traffic requirements to and from the Island of Montreal and across the St. Lawrence River.
- Also the construction of the Seaway had raised important questions concerning the development and relocation of industry in the Montreal region and the general economic expansion and population growth of the area.

Since its inception, the Bureau has undertaken a number of major economic and other studies, including:

▶ A submission to the Royal Commission on the Coasting Trade of Canada.

It was pointed out, for instance, that it would be regarded with considerable alarm if after the Seaway was built ships of U. K. and foreign registry would be encouraged and allowed to compete with Canadian shipping for the inland coastal trade under conditions which, unless modifying restrictions are imposed, would be severely detrimental to the Canadian shipping industry and which could ultimately force it out of business.

▶ Regional traffic and transportation.

The more important conclusions of the study can be summarized as follows: Montreal commuter zone comprises a region having a present radius of approximately 30 miles from the centre of the city.

The present population of the region is in excess of two million. It is growing at the rate of 40,000 a year. By 1970, the estimated population will be about 2¾ million. By 1980, it will be verging upon four million.

The present and future cost of bridge or tunnel traffic facilities inter-connecting the island of Montreal with the south shore has been vastly increased by the need to build high over the Seaway or deep tunnels under it.

Following many discussions, based on proposals put forward by the bureau, the Minister of Transport announced the intention of the Federal Government to build a new toll bridge across the Laprairie Basin, via Nuns' Island.

In the same way an approach was made to the provincial authorities and Quebec Hydro.

The bureau has been reliably informed that a combined bridge and power generating plant at the Lachine Rapids are engineeringly feasible and there have been some unofficial intimations that the provincial authorities look with favor on the proposal.

▶ A master regional transportation plan.

To this end, in addition to the surveys and studies already referred to, a director of the bureau has been meeting regularly with the director of traffic, the director of city planning and the director of public works for the purpose of appraising the over-all problem of regional transportation, both of goods and of people.

▶ Promotion and development of the Port of Montreal.

If the Seaway, as such, offers no threat to the future well-being of the port, it nevertheless does create a new situation which changes materially Montreal's privileged role at the head of ocean navigation.

The Bureau has been developing a port promotion program to offset possible decline in trans-shipment volume.

This program will be supplemental to the general program of port promotion which the National Harbors Board undertakes on behalf of all the national ports it administers.

The bureau's program is being developed in close co-operation with the Harbors Board, the Port Manager, the Shipping Federation and other interested bodies.

▶ Regional planning.

The bureau has taken an active part arousing interest in the need for regional planning more particularly, in the area between Sorel and Valleyfield.

Other important studies carried out by the bureau:

- The effects of the Seaway on the future of the Lachine canal.
- The evolution and development of modern ports.
- The pros and cons of a foreign trade zone for the Port of Montreal.

Maritimes

Will Seaway Hit Economy?

How will the St. Lawrence Seaway affect the three Maritime Provinces?

With the opening of the vast inland water highway now less than two years off, this is a question uppermost in the minds of many Maritime shipping, transportation and other businessmen.

Despite extensive discussion, few if any clear cut conclusions have emerged to date. One reason is the variation in estimates on such facts such as the level of seaway tolls, volume of cargos and numbers of ships that will use the route.

As the three Atlantic provinces will feel only the indirect effects of the Seaway, many Maritimers argue it is difficult for them to assess the impact on their region at this time. Central Canada and the U.S.—which will feel the impact directly — are anything but agreed on exactly what will happen, they point out.

If anything, present feeling about the Seaway in the Maritimes runs from neutral to the pessimistic.

Shipping men — who probably are most directly concerned—generally feel that for the time being at least the Seaway can and will do little harm to the port business presently held by Halifax and Saint John.

This belief is based on the fact that regardless of how economic the Seaway may prove to be, for the foreseeable future the waterway will be closed to navigation during the winter months because of the freeze-up. Thus Halifax and Saint John appear to be assured of continuing their traditional role as Canada's two main Atlantic winter ports.

Winter Ports

To the two ports the short, five month long winter season is of paramount importance as two-thirds of total annual cargo volumes are handled during this period. The balance is spread over the remaining seven month "summer" season.

As far as the summer season itself is concerned, some shipping men point out that a substantial volume of business—by its very nature—will likely remain unaffected by the Seaway.

There is, for example, trade with the Caribbean and central America which as far as the ports of Halifax and Saint John are concerned centres largely around goods produced in the three Maritime provinces. As long as a southern market exists for these goods, ships will continue calling at Halifax or Saint John to pick them up.

Likewise there is the trade with the Far East which includes such cargos as rubber, tea and hemp.

Grain shipments, it is conceded, could be greatly affected by the Seaway although there are some who doubt that this will actually be the case.

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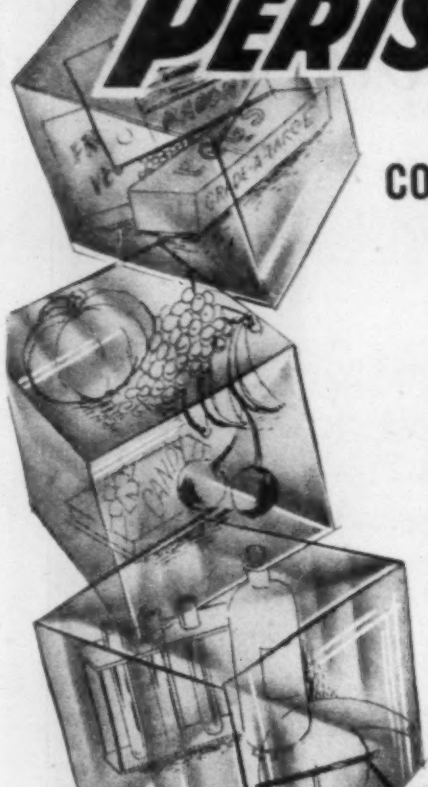

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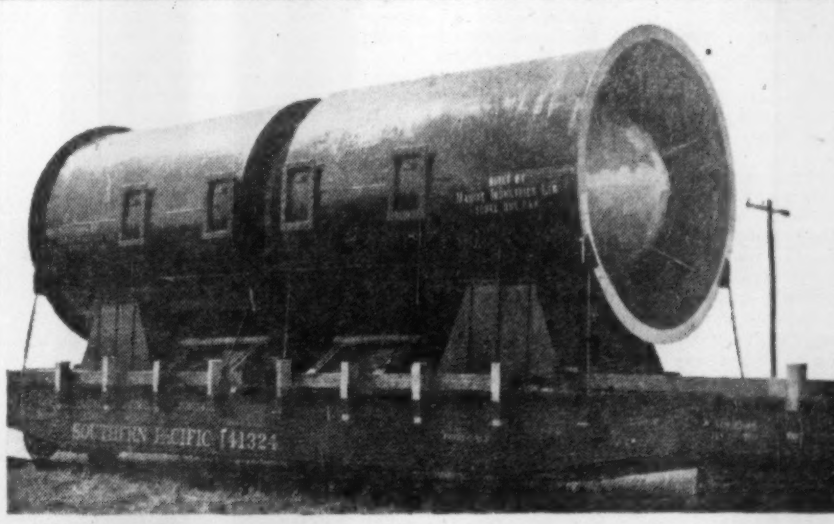

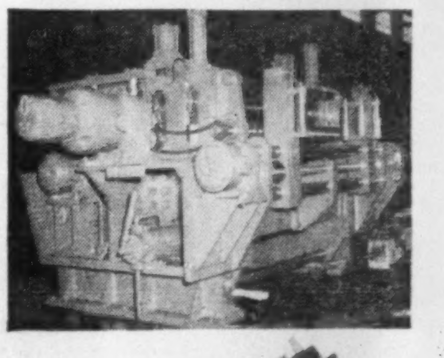

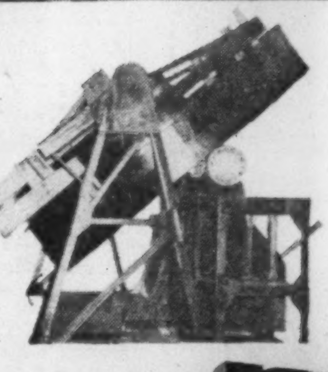

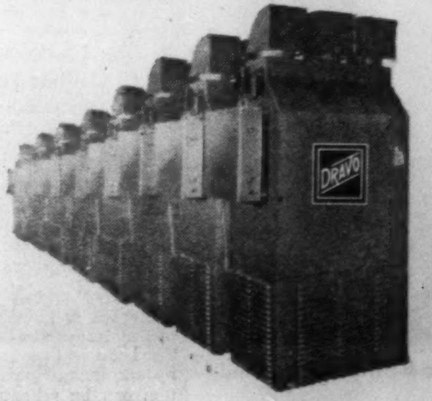

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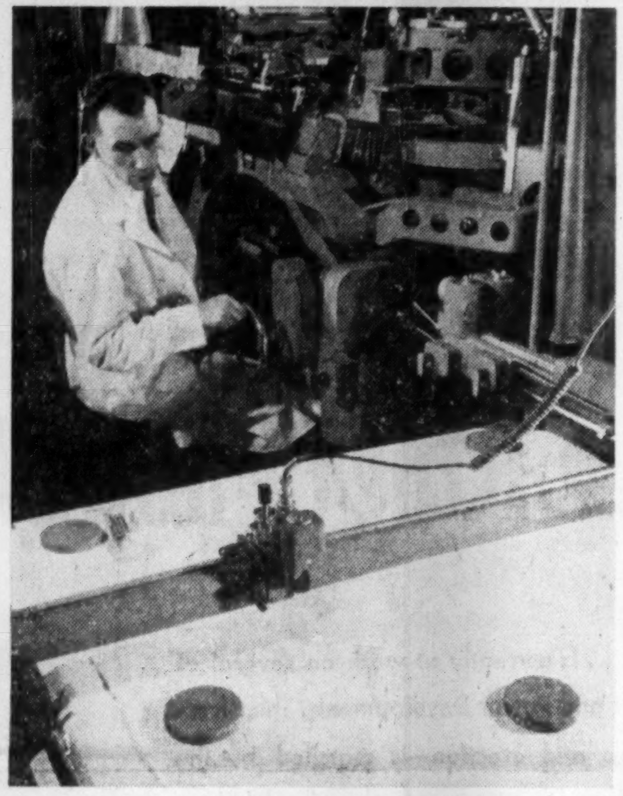
From high-level air photographs like that above, experts find contours with the stereplotter (right). This system is so accurate that roads and rail lines can be laid out without setting foot on the site. The final result: Ontario Hydro's great St. Lawrence maps, one of which is reproduced below.



Air Surveys

Short Cut for Hydro

Move a grave. Move a railroad. Move a town. These were just some of the gigantic problems facing Ontario Hydro Commission engineers when the final go-ahead was given on the St. Lawrence power project.

Hydro engineers were faced with more than the problems of hydraulics. One of the oldest settled areas of Canada was to be flooded.

Before the St. Lawrence could be allowed to wash over its old banks, planning had to be done that would satisfy national, provincial and municipal authorities as well as churches and historical societies. This work had to be done before the sorely needed new hydro-electric project could go ahead.

In view of the magnitude of the project and the necessity for omitting nothing that might be of service in the line of modern survey methods, it was felt that the overall plan developed from aerial photographs by photogrammetric methods would be of great help.

Crash Program

It had to be a crash program starting in 1955.

The answer lay in the new techniques of surveying by aerial photography, the science of photogrammetry.

Two associated Ottawa companies, **Spartan Air Services Ltd.**, and **Canadian Aero Service Ltd.**, were called on in 1955 to produce detailed map manuscripts using these new techniques.

Spartan, a Canadian air survey company, operates 50 aircraft and helicopters across Canada and around the world. Canadian Aero supplies the technical skills and instruments to turn vertical air photos into map manuscripts such as those supplied Ontario Hydro for the power development.

The work of these companies, according to Hydro engineers, lightened Hydro's problem and contributed to the success and economy of Hydro surveys.

Aerial mapping of a 70,000-acre section of the international rapids area of the St. Lawrence was a big job, but crews from the Ottawa group had complete map manuscripts in the hands of Ontario Hydro engineers within eight months.

How They Did It

Here is how it was done:—

—A study of existing aerial mosaics (overlays of aerial photographs) of the area between Cornwall and Cardinal indicated that new maps of the area were needed. Plans were made to photograph from the air a strip 40 miles long, extending 2½ miles in from the Canadian shore of the St. Lawrence.

—The photographic flights were made at under 10,000 feet with an aircraft carrying the Wild RC5A aerial camera.

—In all, about 125 photos were taken. Map manuscripts were then prepared using a Canadian Aero Wild A-8 stereoplotter, a complex Swiss-made instrument.

The A-8 is the backbone of the Canadian Aero mapping organization.

With it, a skilled operator views two transparencies of vertical aerial photographs stereoptically through binocular-like eyepieces. This gives a three-dimensional effect, and with hand and foot levers the operator can follow the contours and the outlines of the area being viewed. As he follows the physical patterns of the area, a system of gears activates the actual plotting machine and the image is permanently transferred onto a manuscript.

Uses made of the maps by Hydro included:

Co-ordinating the overall picture of the power project:

It was clear from the start that overall maps of the Hydro project area were needed quickly at a small scale. These were made from the map manuscripts supplied from aerial photos.

The existing townsites, highways, railroads, shorelines, were marked by Hydro on the maps, as well as the proposed townsites, highway and rail locations, new shorelines, and power structure positions to give a clear picture of the changes to take place in the international rapids area as the job progressed.

Hundreds of lithographed copies of this overall map were supplied to Ontario Hydro location and design engineers working on all phases of the project.

One of the knottiest problems involved in the power project is the rehabilitation program. This was necessitated by the proposed flooding of populated areas to create the headpond necessary to the development and the consequent relocation of the residents.

Some 6,500 people in 500 homes in the village of Iroquois, Aultsville, Farran's Point, Dickinson's Landing, Wales, Moulinette, Mille Roches, and one-third of the town of Morrisburg, and about 225 farms along the river's north shore are being moved. This is the responsibility of Ontario Hydro, and this is where aerial photography plays a role.

The inhabitants were moved to three new communities, new Iroquois, Long Sault and Ingleside. A new sub-division and business section are being built in Morrisburg. In all, 20,000 acres of land along the north shore of the St. Lawrence are to be flooded.

Land survey for property settlement:

No large scale land survey

"Our birdseye viewing moved towns in record time."

had been conducted in the townships in the power development area since the 1790s when the compass and Gunter link chain were used.

Hydro officials knew that the commission would be acquiring a majority of the parcels of land in the area, and it was agreed to use aerial photographs to aid in a land survey to be used in property settlements with inhabitants whose property would be taken over for the power project.

Some 34,000 acres of land had to be acquired and reallotted for its new use. Detailed maps were prepared with the aid of aerial photos, and were used in dealing with owner's claims regarding land settlement. It was a relatively simple matter to check these plans during negotiations.

Locating gravel for the seaway project:

Not too much imagination is needed to realize how much gravel and other natural materials would be needed in a project as immense as this. To solve the problem, specialized aerial photo-interpretation was done by Hydro engineers and geologists in locating gravel deposits in the International Rapids area. At least 4,000 square miles of lowland area were explored in aerial photos without the need for preliminary field work.

Cornwall diversion canal planning:

Photogrammetry was used in selecting the site of the Cornwall diversion canal and dyke closure. This mile long diversion canal will enable ships to sail without interference through the busy powerhouse area.

Parks and scenic roadways:

Ontario Hydro made the plans available to the St. Lawrence Development Commission for it to develop parks in the area. A model of the Crysler Memorial Park was developed, from aerial photos. And final plans for a scenic driveway that will skip from island to island (12 in all) in the river over a network of bridges and causeways were issued on the aerial plans.

Shoreline re-establishment and improvement:

With the advent of dams at Long Sault and Iroquois, Hydro engineers had to plot new shorelines along portions of the St. Lawrence. They knew how much higher the water level would be, and were able to calculate how far inland the water would encroach and where the new shoreline would be.

The accuracy of planimetric contours in the map manuscripts supplied was an important factor in shoreline re-establishment.

By the same token, shoreline improvements such as dykes could be planned and located using the manuscripts after the new shoreline was established.

Channel excavation:

Although Ontario Hydro was primarily interested in the power generation aspects of the St. Lawrence, thought had to be given to cutting channels for ships plying back and forth between the Atlantic and Great Lakes ports. Aerial photography came in for heavy use in locating suitable sites for channel cuts along the Seaway through the power development area keeping in mind the overall project.

All along the development area, construction, relocation and other jobs called for cut and fill of earth and rock. The map manuscripts supplied to Ontario Hydro showed the earth's existing contours to within the standard tolerances of an accuracy of half the contour interval.

Thus, it was possible for engineers to make their calculations for cut and fill using the maps rather than by the more time-consuming method of actual checking on-the-spot.

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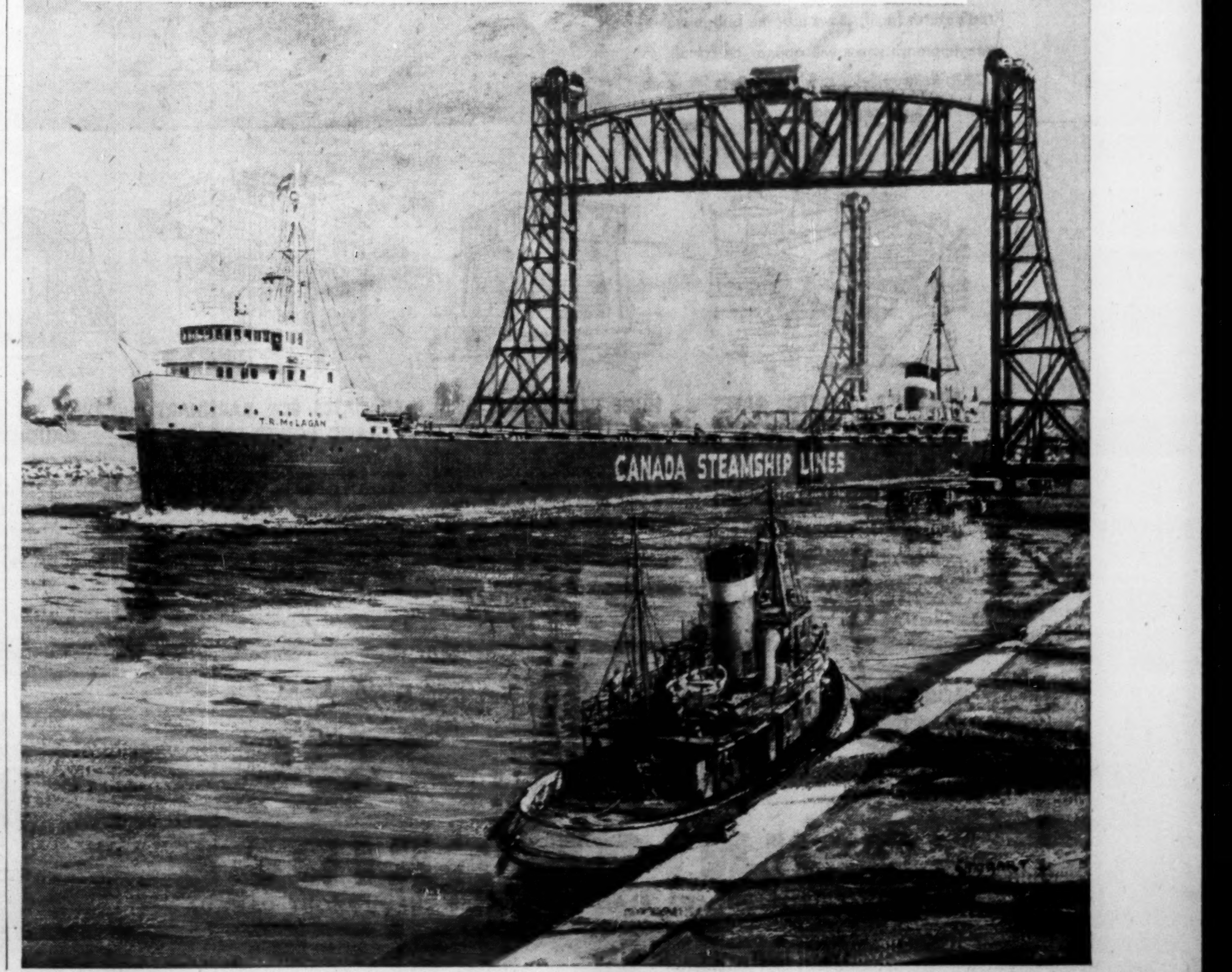


New Iroquois

Only the Old Look at the Debit Side

IROQUOIS (OLD AND NEW): "We've Got to Go, But Watch Us Grow."

Possibly nowhere along the whole length of the Seaway project is the human problem more clearly shown than at tiny Iroquois, Ont.

Iroquois — 100 years old this month — owes its existence to the St. Lawrence River that wound past its doorstep.

Building of the first canal in 1857 brought about the birth of the community.

But almost all this century men have talked and dreamed of the Seaway. Almost every plan called for the flooding of the town.

With that sort of future waiting ahead there was little compulsion to improve things. As one long-time resident told **FP** recently:

"Some day we were certain the water was coming. Why spend time and money making a fancy home for some fish and his family?"

That sort of thing was inevitable. Residents of Iroquois grew up with the belief that some day soon their homes and places of work would be destroyed.

Unhappily it was reflected in the town. The motorist who passed through had little reason to stop. The main street had the forlorn look of an area on the economic skids.

It was a totaly wrong impression. The town, its people and its principal industry **Caldwell Linen Mills** had guts and ambition, they lacked only a future.

In 1954 the axe fell. The Seaway project became a reality. The fish were slated to take over.

The news was received in different ways by the small population. In a hard times textile market, Caldwell Linen found itself with a heaven-sent chance to get a good price for its property and get out of the business.

Instead the company announced it would move inland along with the town. It would increase its production capacity and modernize all its equipment.

This was the key to Iroquois thinking. Soon the passing motorist had something to catch his eye. At the entrance to the town there appeared a sign which read:

"We've got to go—but watch us grow!"

The sign is still there now, on the outskirts of the almost deserted main street.

New Iroquois

A mile or so inland is the new Iroquois. The visitor is free to "watch us grow."

Instead of the old hodgepodge of houses, stores and offices that form with any town, the new Iroquois is almost a town planners ideal.

Almost, because the residents of Iroquois met the challenge in different ways. The majority saw the real chance to chuck old outmoded homes and move into new suburban ranch-type dwellings — for prices they could never hope to have got without Ontario Hydro's help.

But it was not easy to condemn an old house that might have seen three or four generations of one family. Many Iroquois residents thought long about it and decided to accept Ontario Hydro's alternative offer to move things lock, stock and homestead.

For these families there came giant moving machines that reached under foundations with muscular steel arms, gripped whole buildings, and rumbled off to the new town site.

The final result is not as incongruous as might be thought.

Pride of the new Iroquois, justifiably, is its imposing shopping plaza. "L" shaped, it houses all the town's merchants.

Many of the old facilities have been retained. For instance a tobacconist in old Iroquois maintained a billiard table in a back room.

Today the customer enters his modern store only to hear the click of billiard balls. A back room has been provided; the games go on without interruption.

New School

Across one of the new roads that surrounds the centre is the new, long, low, school building. This makes an enormous difference to the children of the district.

The old school, built 90 years ago, was outmoded, overcrowded and forbidding. Its stone architecture glares down as if to assure no wasteful smiling or fun in its area.

Now there is plenty of room, all the necessary educational facilities. Any area in Canada would be proud of it.

Originally Iroquois was going to bring the river with it to its new home. The plan called for flooding the old site which would have brought the river's edge up to the new town.

But later investigation revealed it would be a swampy backwater, because of the nature of the earth. Most recent plan is to fill in the old townsite with mountains of dirt that are being excavated on the nearby power and lock projects, and to landscape a spacious riverside park.

This seems the likely outcome. It would fit the Seaway project plan to landscape the navigation route along its entire length.

That is Iroquois in the summer of 1957. On the credit side: Fine new homes, the most modern of retailing outlets, a new school, a rejuvenated industry and a new place in the economic life of the surrounding area.

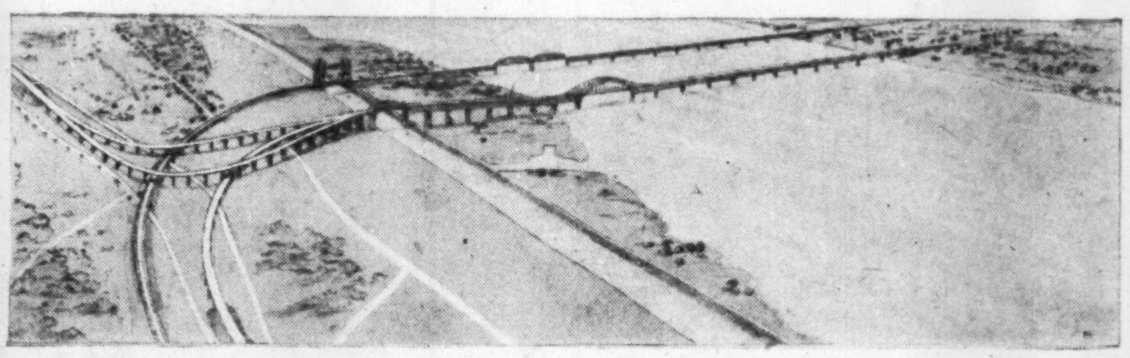
Only the old people think much about the debit side. With all the prosperity and hope around them, the bulldozers and steam shovels cannot replace a way of life they knew and loved.

That is the human problem of the Seaway.

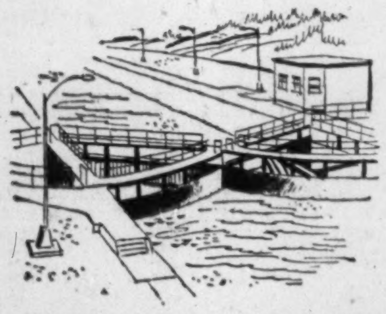
7 Major St Lawrence River Projects

One engineering company . . . Dominion Bridge . . . is currently at work on several of the largest steel structures for the St. Lawrence Seaway and Power Developments. The diversity of this work—which includes design, manufacture and erection—is matched by the diversity of Dominion Bridge facilities. Seven of these major projects are described below. These, and others, will make an important contribution to the St. Lawrence River developments and to the economic advancement of Canada.

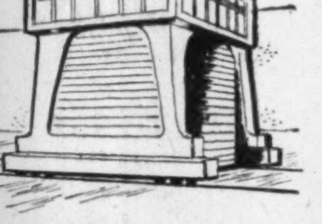
"NEW LOOK" FOR HONORE MERCIER BRIDGE near Montreal, involves a new high-level 300 ft. span over the ship canal and 6,500 ft. of steel work for the approach sections to the South Shore. Artist's sketch (right) shows how the bridge with it three approach spans will appear on completion. C.P.R. Railway bridge, with new twin lift spans, appears in the background.



TWO LIFT SPANS AT VICTORIA BRIDGE, MONTREAL. For this complex project, two lift spans—one at each end of the St. Lambert Lock—will be constructed so that railway and highway traffic will not be appreciably affected. Thus, when either of the spans is raised to permit passage of ships, traffic will be able to flow without interruption over the seaway channel.

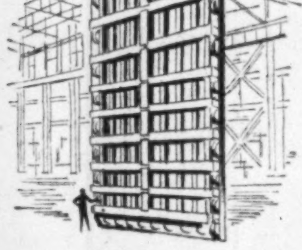


SIX PAIRS OF SECTOR GATES will be built for the shipping canals. Each pair is 45 ft. high and weighs about 500 tons. Four pairs will be installed at Iroquois, Ont. and will act as the operating gates of the lock. There will also be one pair of guard gates for each of the Beauharnois and Cote Ste. Catherine canal reaches in Quebec. All six pairs are capable of operating against a differential head of running water during an emergency.



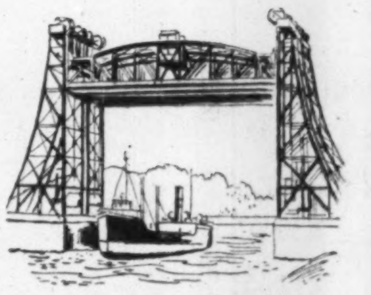
HUGE CRANE ACTS AS "TRAVELLING POWER HOUSE"

A 300-ton gantry crane, the largest ever built in Canada, is being designed and fabricated for the Canadian half of the Barnhart Island Power House. Completely enclosed, the crane illustrates a modern trend in design and serves, in effect, as a "travelling power house."



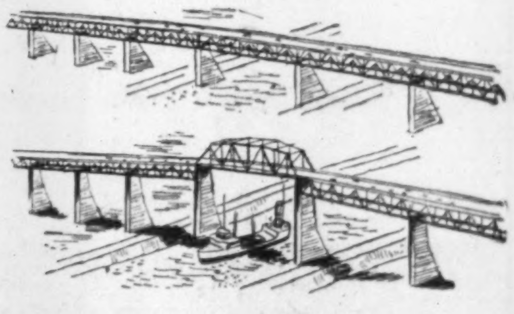
48 GATES FOR BARNHART ISLAND POWER PROJECT

These hydraulic head gates comprise the largest order of its kind ever placed in Canada and are now being fabricated for Ontario Hydro. With bedded parts and hoisting machinery, they are designed for openings 17 ft. wide by 37 ft. high. Each will withstand a pressure of 3,000,000 pounds under a 93 ft. head of water.



TWIN LIFT BRIDGES AT CAUGHNAWAGA

This structure, consisting of twin lift bridges, side by side, each carrying a single railroad track of the Canadian Pacific Railway, is being designed and built for the Seaway Authority. Each movable span weighs about 1,000 tons and can be raised or lowered in 75 seconds.



UNIQUE BRIDGE-RAISING PROJECT

Believed to be the largest project of its kind ever undertaken is the permanent raising of the southern end of Jacques Cartier bridge, Montreal, and the replacement of one span. The purpose of this work is to provide a minimum vertical clearance of 120 ft. for shipping in the seaway canal. An interesting feature is that uninterrupted traffic will be maintained over the bridge during most of the construction period. Dominion Bridge fabricated and erected the existing bridge in 1929.

DOMINION BRIDGE

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